

MASSACHUSETTS PLOUGHMAN

DEVOTED TO AGRICULTURE, THE FARM, THE GARDEN, THE HOUSEHOLD, AND THE COUNTRY.

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All persons sending contributions to THE
PLOUGHMAN for use in its columns must sign
their name, not necessarily for publication, but
as a guarantee of good faith, otherwise they will
be considered as anonymous. All matter
intended for publication should be written on
note size paper, with ink, and upon both sides.

Correspondence from particular farmers, giving
the results of their experience, is solicited.
Letters should be signed with the writer's real
name, in full, which will be printed or not, as
the writer may wish.

THE PLOUGHMAN offers great advantages to ad-
vertisers. Its circulation is large and among the
most active and intelligent portion of the com-
munity.

Rates of Advertising:
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AGRICULTURAL.

A LATE second crop which is sure to
succeed is turnips and rye.

THE Boston market prefers red fruit
of nearly all kinds; this fact should be
borne in mind when selecting varieties.

CLOSE set blackberries are a nuisance.
Land is cheaper than scratches and
bushes. With the rows eight feet apart
and the plants between wires both man
and team can work with some comfort.

NEXT year's strawberry crop must be
practically grown this season. Watch
the weeds and runners. There is one
fruit crop which pays for irrigation as
well as the strawberry, and that is saying
a great deal, that is the raspberry.

JULY and August are the chief weed
months. Some kinds such as purslane
begin to make trouble at this time. If
a weed is not killed when it is starting
from seed, the next best thing is to kill
it in full blossom just before it goes to
seed.

PROF. VANDERMAN thinned out the
apples on his thirty year old Kansas
orchard at a cost of about ten cents per
tree, the work being done by hand. He
finds it paid in quality of fruit, and the
practice enabled him to get a crop every
year.

THE Seckel pear is valued by those
who raise it on account of its regular
bearing qualities. It seldom fails to
give a fair crop, and although small, it
is especially rich in flavor and com-
mands a good price, especially for cold
storage.

Now that the Japanese plums have
come into general cultivation there is
small excuse for every farmer not hav-
ing a home supply at least. The Japs
are not black knot proof nor bug proof
but are quite nearly so, and generally
give a good crop.

ONE man tried thinning plums and
his brother laughed at the way he thinned
them. He thought the crop was ruined,
but the grower, instead of being fright-
ened, thinned them out yet again. The
crop was very large, and the fruit so
excellent that it brought fancy prices.

NEW varieties of orchard fruits are in-
troduced every year and some of them
are growing in popularity. The stand-
ard apple is still the Baldwin all over
New England. There are about five
leading kinds of pears: Bartlett, Clapp's
Favorite, Seckel, Sheldon and Anjou.

THE only remedy for fire blight is to
cut out the affected parts as fast as they
appear, but nothing will wholly stop it
at a time when the weather is favorable
to its spread. It often appears at sea-
sons like the present, when hot weather
follows soaking rains. It sometimes
kills whole pear orchards.

For protecting all kinds of fresh
wounds on trees, the best remedy is
grating wax.

THE bisulphite of carbon remedy for
woodchucks is well liked. The best way
is to run it deep down into the hole
through a rubber tube, then stop up
entrances.

SOME people will insist on planting
currants close to the wall where they
cannot be properly cultivated. In such
locations the bushes do not thrive so
well and the fruit is more likely to be
wormy and cobwebby. To mulch the
row thoroughly with meadow hay will
be to make the most of the situation.

SOMEbody inquires for a remedy for
plant lice. It is too late to do thorough
work after the leaves begin to curl, but
something can be done by applying
plenty of tobacco water, made by add-
ing two gallons of hot water to each
pound of stems, allow it to cool and
then apply lavishly with a spray pump.
For young trees it will pay to take some
fresh insect powder and thoroughly dust
it on the insects infesting the fresh
growing tips.

WHEN there is no use for fresh ber-
ries they can be dried with success, and
can be freshened up to make good sauce
in winter, by soaking in water. This
applies well to raspberries, blackberries,
blueberries and huckleberries. Simply
spread them on sheets of clean paper or
cloth in a clean sunny room, not in
heaps, but only one berry deep, if there
is room. If dried in an evaporator, they
will be of better flavor, but sun-dried
berries are very acceptable for family
use.

Death to Insects.

A good insect killer which has the ad-
vantage of not being injurious to human
beings or animals is pyrethrum or Per-
sian insect powder. It is worthless un-
less fresh, but when in good condition
its volatile oil kills insects by contact.
It must be kept in an air tight jar.
When used in the form of powder it
may be simply dusted on plants infested
with insects or blown upon them with
powder. It may be used clear or mixed
with two to ten parts of flour. Some-
times it is more convenient to use it
dissolved in water, one ounce to three
gallons.

Leguminous Forage Crops.

Leguminous crops play a very im-
portant part in agriculture. Their cul-
tivation is being deservedly extended,
and the increase in acreage devoted to
their growth will undoubtedly continue
until their full utilization as soil renova-
tors and as cheap producers of fodder
rich in nitrogenous compounds is at-
tained, says a report of the Department
of Agriculture.

HISTORY OF CULTIVATION.

The oldest cultivated forage plants
and the best for enriching the soil are
those of the clover family. Not one of
the now well-known hay or pasture
grasses has been cultivated more than
three hundred years, while a number of
leguminous crops have been grown for
forage from prehistoric times. The
chick-pea, or gram, dates back full
thirty centuries. It is today one of the
leading grain crops and soil renovators
of Spain, India, and central Asia.

The soy beans have been grown in
China and Japan, and lentils in Hun-
gary, from prehistoric times. The field
pea, originally from northern Italy, was
introduced into cultivation eight or ten
centuries ago. Sainfoin was grown in
France and red clover in Media during
the early years of the fifteenth century,
and white or Dutch clover in Holland
at the beginning of the eighteenth cen-
tury. During this century and within
recent years a score or more of valuable
legumes have been brought to the atten-
tion of the farmer, and hardly a year
passes that new ones are not added to
the list.

FEEDING VALUE.

All green plants during the process
of growth take carbonic acid gas from
the air and water and soluble mineral

salts from the soil and build up by the
life processes the starch, sugars, fiber,
oils, and other carbohydrates of the
plant body. In addition they gather
through their roots such compounds
of nitrogen, mostly in the form of
nitrates, as are available or are soluble
in the water of the soil.

Leguminous crops alone of all those
in cultivation have the additional pow-
er of drawing directly upon the enormous
and ever-present supplies of atmospheric
nitrogen. They transform it into crude
protein, which is so valuable and so
necessary as an animal food, and also
into fertilizing compounds which, when
left in the soil with the roots and stub-
ble, may be utilized by succeeding nitro-
gen-feeding crops.

Following the process of digestion of
food by a herbivorous animal, the car-
bohydrates become the sources of heat
and energy, and whatever surplus re-
mains above immediate wants is stored
up in the animal carcass as fat. The
crude protein is used during growth in
the production of new tissues and in the
repair of worn-out ones. Its nitrogen
enters into the fibrin of blood, the albu-
men of muscle, the gelatin of bones and
tendon, the casein of milk, and to a cer-
tain extent into the surplus fat. None
of the animal albumens can be formed
unless there is digestible crude protein
in the food. Hence, the digestible crude
protein in the fodder is its most im-
portant constituent.

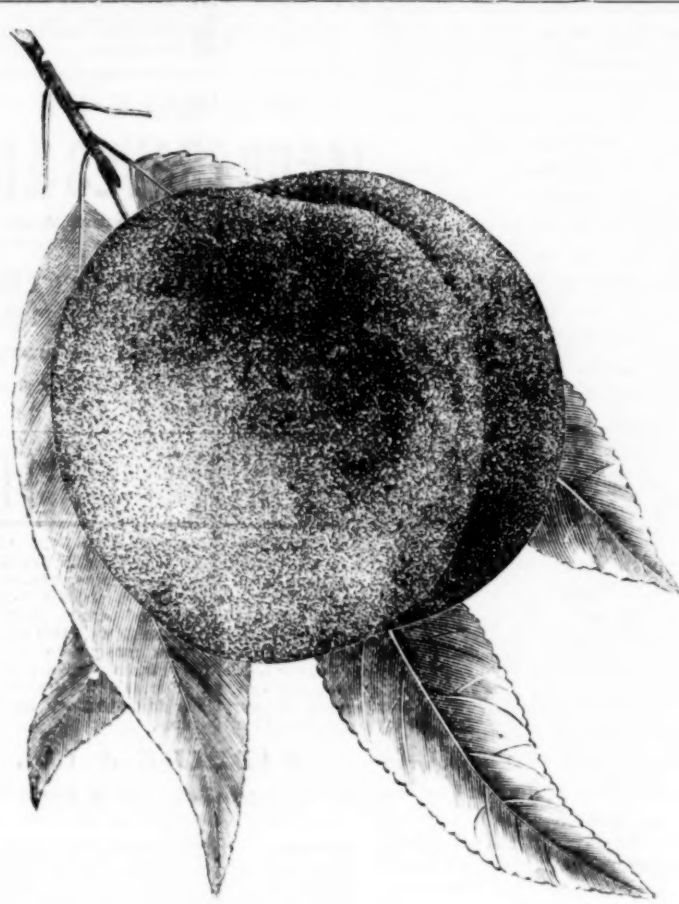
To produce flesh and blood or any
albuminous compounds within the ani-
mal body a ration containing crude pro-
tein must be fed. Determinations have
been made of the exact proportion in
which the different forage elements must
be used to produce the greatest gain at
least cost. Thus, a milch cow of 1,000
pounds live weight requires twenty-four
pounds of dry, organic matter per day,
of which about sixteen pounds must be
digestible. The ratio between the
digestible crude protein and the digesti-
ble portion of the fats, nitrogen-free ex-
tracts, and fiber is known as the "nutri-
tive ratio."

COMPARISON OF RATIOS.

The fats have two and one-fourths
times as much heat value as starch and
fiber, which is taken into account in de-
termining this ratio. Where the per-
centage of digestible crude protein is
large in comparison with that of the
other digestible constituents, it is
spoken of as a narrow ration, while a
wide ration is one in which the per-
centage of digestible crude protein is small
compared with that of the whole. The
ration is "complete" if all the essential
food elements are present in the right
proportions.

It has been found as the result of nu-
merous feeding experiments that a nar-
row ration is a much more economical
one to feed than a wide one, especially
in the production of milk or in promot-
ing a rapid and continuous growth in
the case of young animals. Thus, it will
be seen that for the most economical,
and hence the most scientific, method of
feeding, it is necessary to use forage
crops which contain a large percentage
of digestible crude protein, rather than
those which are richest in starch, sugars,
gums, and oils.

Of the coarse fodders, those richest
in digestible crude protein are of various
legumes. The leguminous forage plants
are superior in feeding value to the true
grasses, because they usually contain a
larger proportion of digestible protein.
The most economical and most profitable
method of feeding domestic stock is to
feed according to the rules which have
been laid down as the results of scientific
experiments. In feeding two rations, a
narrow one which provides for the actual
needs of the animal, and a wide one,
weighing as much as the first but defi-
cient in crude protein, the former will
be the most economical. The rate of
gain will be greater and the relative
cost of every pound of gain according to
the amount of food consumed will be
less. Looking at the forage question
from this standpoint, it can be seen at
once why the cultivation of leguminous
forage plants ought to become more
extended. If the necessary crude pro-
tein is bought in the form of wheat bran,
cotton-seed meal and hulls, gluten meal,
or any other of the so-called concentrated
foods, it is necessarily expensive. But,



PEACH, AMSDEN'S JUNE.

grown upon the farm in the shape of
leguminous forage, the essential crude
protein may be produced at no greater
outlay than is necessary in the produc-
tion of forage crops of less feeding value.

USE OF FODDERS IN RATIOS.

The coarse fodders and concentrated
food stuffs should be combined in the
daily ration of every animal on the farm
according to the laws that govern the
disposition within the animal body of
digestive crude protein, fat, and car-
bohydrates. Knowing that the best
nutritive ratio for a milch cow is about
one to five, it is absurd to feed a one
to ten ratio and expect good results.

By the use of leguminous crops the
farmer may produce upon his own land
fodders which approach in feeding value
the various meals and oil cakes, and at
the same time be growing a fertilizer
crop that will supplant the expensive
nitrogenous salt-peter, guano, bone, fish
scrap and animal wastes that otherwise
must be purchased.

FERTILIZING VALUE.

It has been noted by competent ob-
servers that the point of decadence in
the agriculture of a country is marked by
the decreasing acreage devoted to the
growth of forage plants. It is also true
that, other things being equal, the rate of
deterioration in the soil fertility is less
in pastoral regions than where grain and
the more specialized crops are raised.
There is a constant drain or leakage of
plant foods from all cultivated lands, but
the annual loss is least where the farm
produce is marketed in the shape of
meats and animal products. The agri-
cultural wealth per capita is higher in
communities where the principal line is
the growing and fattening of cattle, or
the production of bacon, milk, butter,
wool, and cheese.

In the cattle-growing states the rate
of profit on investment may average as
high as from twenty to thirty-five per
cent per annum among those who thor-
oughly understand the cattle business.
On the dairy farms which supply the
great cities of the land the same high
earnings often prevail. This condition
of affairs is, in a measure, due to the
fact that much of the most valuable fer-
tilizing elements of the forage plants
used are returned to the land, combined
in a form well adapted to the growth of
succeeding crops, while only a minimum
amount is lost from the holding of the
producer. The land thus used becomes
richer instead of poorer.

The production of forage crops and
their use upon the lands where they are
grown becomes, then, one of the best
agricultural practices. But in growing
and feeding the forage crops, as in all
other branches of farm industry, it is
necessary to use those plants which will
give the greatest returns for the least
given outlay in the shape of the fertiliz-
ing elements removed from the soil.
Farmers have long recognized the neces-
sity of leguminous crops in a feeding
ration or a field rotation.

HOW LEGUMES IMPROVE THE SOIL.

Modern agricultural chemists search-
ing for the true answers to these prob-
lems have discovered that leguminous
crops are not only consumers of avail-
able plant foods, but that they actually
manufacture the most valuable and
most essential nitrogenous compounds,
using the free gaseous nitrogen of the
air. This transformation of an inert
gas takes place through the agency of
minute, almost infinitesimal bacteria,
which live within the tissues of the
roots of plants of this order, pro-
ducing knot-like swellings or galls upon
them. Each variety of legume has its
own peculiar bacterium, on whose pres-
ence it is dependent, and unless its par-
ticular species of bacterium comes in
contact with and infests the roots, the
plant can not get more nitrogen than
could be secured by the roots of a grass
and tobacco plant. It can then only
take up such nitrogen as is already
present in the soil in available or soluble
form. If these bacteria are entirely ab-
sent from the soil, the clover or bean
will not fully develop unless an abun-
dant of soluble nitrates are present.

This wonderful dependence of plants
of the clover family upon the minute
bacteria which live within the root tis-
sues offers an explanation of the failure
of such crops when tried upon soils not
previously devoted to their cultivation.
It has been found by experiment in this
country and abroad that such new legu-
minous crops may be successfully cul-
tivated by inoculating the land either with
artificial preparations or cultures contain-
ing these germs, or with soil from a field
where this crop has been previously
grown. Good results are also sometimes
secured by treating the seed preliminary
to sowing. By such an inoculation the
yield of total dry matter has been in-
creased sometimes from tenfold to thirty-
fold. Moreover, it is found that there
are no gall tubercles formed on the roots
of leguminous crops when these nitro-
gen-bacteria are not present in a soil,
and hence there can be no utilization of
gaseous atmospheric nitrogen by them.

Nitrogen is the most important plant
food. It is the most expensive fertilizer,
when purchased in artificial manures. It
is also the most necessary element of
animal foods; for when it is entirely ab-
sent, or present in insufficient quantities
there can be neither growth nor the com-
plete repair of worn-out tissue. Hence,
it can readily be understood why the
abundant cultivation of leguminous
crops is so necessary. The legumes are
the only crops which will, when plowed
under, increase the total of fertilizing
materials of the soil.

MECHANICAL EFFECT OF DEEP-ROOTED LEGUMES.

Leguminous crops are, furthermore,
valuable soil renovators, because they
are deep feeders. Their roots extend
down into the stiffer and more compact
subsoil, loosening and opening it to the
action of the air and rendering it more
permeable by water. The roots bring

up from below great quantities of pot-
ash salts and phosphoric acid and leave
them near the surface, where they may
be utilized by potash-devouring cereals,
tobacco, and root crops.

In sandy soils and reclaimed marsh-
lands or in soils containing large amounts
of organic matter the quantity of potash
is usually deficient. Here the deeper-
rooted legumes, such as gorse, broom,
alfalfa, lupines, sulla, and the perennial
beans, may be of great value, not only
taking nitrogen from the air, but potash
from the subsoil, and increasing the
quantity of both of these fertilizers in
the surface layers of the soil. The roots
and stubble largely increase the quan-
tity of organic matter left at the disposi-
tion of surface-feeding crops. The rank
growing velvet bean, cowpea, soy bean,
mellilotus, and beggar weed are on this
account valuable annual crops for use in
the improvement of the heavier clay
soils, which usually have an abundance
of potash but lack humus. The humus
acts as a storehouse for nitrogen, potash,
and phosphoric acid, improves the phys-
ical condition of the soil, and increases
its capacity for retaining water in time
of drought, especially in the presence of
an abundance of lime.

There is opportunity for a great sav-
ing by American farmers, and hence a
greater profit, if leguminous forage crops
can be extensively substituted for those
of less feeding and fertilizing value.
There are leguminous crops which yield
as heavily as the better hay grasses and
which require no greater care and atten-
tion. There is as wide a range of vari-
eties adapted to all the varying
conditions of temperature, soil, and
climate. If by the use of clovers,
soy beans, vetches, alfalfa, cowpeas
and velvet beans the cost of producing
beef, pork, mutton, wool, milk, butter,
and cheese could be lessened by ever so
little, the aggregate gain to the whole
farming population and the country at
large would be enormous.

Why is Clover Not a Permanent "Fertilizer."

In the good old days of our forefathers
when land was comparatively new in
this country, such articles as fertilizers
were unheard of, in fact they were not
needed and soils produced abundant and
paying crops without them. These
same large crops, however, were sapping
the very life blood from mother Earth
but at that time she was strong and
healthy and the comparatively small
draughts upon her made but little im-
pression. A drop of water will wear
away a stone in time and to a certain ex-
tent such proved to be the case with the
soils and crops. Our forefathers though
did not experience this, but it was left
for those who came after them to suffer
the consequences of their neglect.

The first indication of a decline in the
productive capacity of our soils was
probably most noticeable in the case of
clover. Previously ready "catchers" and
large crops had been the rule but later
on difficulties in getting even a stand
began to be experienced. The intelli-
gent farmers realized at once that some-
thing was wrong either with their soil
or their methods, and they set about
therefore to locate the causes and apply
the remedies. One point which es-
pecially caught their attention was the
readiness and vigor with which plants
grew on those parts of the field which
had been covered with the dropping from
animals. They reasoned naturally that
the manure returned something which
had been taken away from the soil and
the loss of which it was beginning to
feel and in fact to show. They therefore
began to use all of the barnyard manure
available and with good results for a
time. But barnyard manure did not en-
tirely fill the bill. First, because they
could not get enough of it, and second,
for the reason that it was lacking in
something. For example, when they
continued to put heavy doses of it on
potatoes they got the most luxuriant
growth of vines imaginable, but when
they dug for the tubers their hopes were
blasted, small in size, few in number
and not of the best quality, tells the
whole story. This state of affairs in-
dicated that while stable manure was
good as far as it went it does not go
quite far enough.

A few of our neighbors were congrat-
ulating themselves upon their wonderful
results with clover. They simply sowed
this crop, got a fine stand and for a
while never failed to gather a fine lot of
potatoes from the sod. The clover acted
like a fertilizer all by itself and they con-
tinued to sow it without using anything
else on their land. By and by though,
even the old reliable clover began to
show a little of that "tired" feeling and
seemed to be in need of some stimulant.
After experimenting a while the farm
doctors found that Land Plaster (which
is a form of lime) was a splendid "tonic"
for clover, hence the cry arose that
"clover and plaster were good enough
fertilizers for any land." Subsequent
experience though, failed to confirm
even this and it was necessary to look
into this subject further. The agricul-
tural chemists—the men whom we
might justly term "soil and plant doc-
tors"—took the matter in hand and
solved the whole problem. They found
that the earth contains certain food in-
gredients which the plants feed on. In
its virgin condition the supply of these
nourishing substances is abundant, which
accounts for the heavy crops which are
gathered on new lands. Continued
cropping though, diminishes these food
ingredients until the land in time fails
to produce profitable crops, then it be-
comes necessary to resort to artificial
means to restore them.

Thanks to the work of the Experiment
Stations, the means for becoming fami-
liar with the correct use of artificial
fertilizers, are quite good and any farmer
with the expenditure of a little time and
trouble can soon ascertain in what man-
ner and which of the missing ingredients
to apply to advantage. The aim how-
ever, should be not to put on just so
much plant food every year but by a
systematic effort to build up the produc-
tive capacity of a soil to its former con-
dition when in a virgin state. While
clover in some cases has been the means
of exhausting soils, it will at the same
time be a valuable agency in restoring
the fertility. We now know that this
crop has the faculty of gathering nitro-
gen, the most costly of the three so called
essential fertilizer ingredients, the other
two of which are phosphoric acid and
potash. If these latter two are supplied
to the soil in cheap forms of plant food
like bone or phosphate and potash the
clover in turn will furnish the nitrogen,
and by sowing this crop at regular inter-
vals it will assist in the restoration of
the land.

Making Hay.

Hay dealers advise that grass be cut
early. In making hay for the city mar-
kets this advice of dealers may be safe,
but the loss in weight from early cutting
is so great that difference in price in
ordinary local markets does not justify
very early cutting. Bright hay can be
made from pretty ripe grass if neither
dew nor rain have a chance to blacken it.
The green palatable and digestible hay is
wanting, but it is gotten at a serious
sacrifice in respect to weight.

Careful experiments have been made
along this line by experiment stations
and farmers, and the yield in well-cured
hay increases rapidly as the grass becomes
fully matured. There is a loss in per-
centage of digestibility as grass matures,
but probab'y no loss in the total amount
of digestible matter obtained from an
acre, on account of increase of total
weight.

In one New England experiment there
was an increase in the amount of
nutrition obtained by leaving the grass
until about matured. For home use it
pays to cut full early, especially for
feeding young stock. The hay is more
palatable, and there is less indigestible
stuff taken into the animal's system.
But it is a losing game to cut early when
making hay for most consumers, the
extra labor, risk and loss in weight
being out of proportion to the difference
in prices they make for early-cut hay and
that from mature grass.—Stockman and
Farmer.

It is a curious fact, and shows how
very unreliable are the common names
of some of our plants, that the cow pea,
so called, is, in reality, a bean, while
the velvet bean is really a pea.—Ex.

POULTRY.

Late Hatching.

"I find that chickens hatched after the hot, scorching days of the mid-summer months are past do well. The little fellows fresh from the shell, will grow faster and thrive better than they will during the heated term. During very hot days they appear to be at a standstill, but in the cool months of autumn when you go to take care of them at night, it seems as though you can see that they have grown since morning!"

R. S. S.

New Hampshire.

In Hot Weather

Hens are bound to take more or less of a vacation in July and August. Some will set and some will just loaf, but all will rest more or less. Regular feeds of meat scraps will keep them laying if anything will. Earth worms are getting scarce and the hens need something.

If the hens are cooped another good egg producer is second growth of clover which is short and rich and easily eaten. When dried this feed is the best to mix with the mash in winter. It there is no shade about the hen coop, a kind of awning can be fixed up with some old bagging or some green brush thrown over a low frame work.

Poultry Notes.

A good large watering dish is a necessity in mid-summer.

If the hens slacken up greatly in laying give them meat scraps.

A small field of corn makes the best and most profitable shade for poultry.

Use carbolic powder or insect powder occasionally in the nests to prevent lice.

People who have only a few hens are very likely to overfeed them. Better keep fowls always a little hungry, active and ready to scratch.

Soft feed once a day and grain once a day is a good plan for both summer and winter. It makes no great difference whether the soft food is given at morning or night.

Growers who wish to get a new variety of fowl, can get eggs much cheaper in July than early in the season. Late hatched chickens will be just as good to breed from next spring, but they can't be expected to lay much this winter.

The best preventive of lice is to clean out the droppings at least twice a week from under the roosts. It is the filthy moisture that serves as a breeding place for insect pests. Sprinkle with a little dry earth each time after cleaning.

While perhaps not strictly necessary for their existence some kind of green food is necessary for the greatest production of eggs. When fowls are kept in pens and yards throughout the year, it is always best to supply some green food.—C. C. Shoemaker.

If prepared meat scraps or animal meal is to be fed, it should be mixed with the soft food in proportion of about one pound to twenty-five hens; the addition of the meat scraps is excellent to force hens to lay. It will be necessary to feed this food in troughs so arranged that they cannot get in them with their feet. At night just before going to roost the hens should have about all they can eat of whole grain composed mostly of corn.

An occasional feed of chopped onions will be relished by the fowls and is a good tonic.

Don't forget to chop up dandelions for the little ducks if kept where they can not get grass.

A subscriber's wife, Oregon: We do not know where you could sell goose quills. When your little chicks are feathering out feed them a little oil meal or green bone mixed with their soft feed.

Keep the young chicks growing; do not allow them to become stunted. Rapid growth produces the finest show birds as well as the most profitable market chicks, so the advice keep the chicks growing is good, whether you breed for the show ring or for market.

Nice clean eggs always find ready sale. If they are dirty they should be washed with warm water; a southern exchange says that if this does not take off all the stains cider vinegar will. It will pay to try this if you have a nice lot of fresh eggs that by accident or otherwise have become stained, for a dirty egg is distasteful, even if the egg is all right inside; the sight of it outside is obnoxious to the delicacy of one's taste.

Nellie Hawks says: It not frequently happens that the tested out, infertile eggs from incubators, and from under sitting hens, find their way into market.

A Pedigree



is as valuable and as desirable in a machine as in an animal. Especially so when it is based upon actual performance.

SHARPLES DAIRY SEPARATORS have that kind of pedigree. They take all the cream from the milk in the best possible way, leaving it in the best form and at the least possible cost for labor, fuel, oil and repairs.

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and especially into business places of the baker and confectioner. We have known breeders of fine poultry to say that they sent such eggs to market—breeders who seemingly considered themselves honest. But, in sending them out for the consumption of an unsuspecting people, is one doing as they would be done by. If those eggs are considered just as good and palatable as the fresh ones, why are they not used at home, letting the fresh ones go to market in their stead?—Western Rural.

Summer Pruning Fruit Trees.

It is perhaps because of the abundance of room farmers and fruit growers have in our country that they look less to the making the most of space than to their brethren across the Atlantic. It is in mind what care is expended on getting the most out of an orchard by the foreigner, so very much more than is taken here. Three years ago when visiting England, it interested me very much to watch a gardener summer pruning his fruit trees which it was my privilege to do. I should mention that the most of the pears, cherries, plums and peaches are grown to walls, trained as vines are, to get the advantage of the protection of the wall, there being none too much heat at the best of times. The trees are pruned twice a year, once in winter and again in mid-summer. The mid-summer one was the one I witnessed. A pear was under operation at the time. The efforts of the gardener were directed to thinning out superfluous branches and shortening in others. It astonished me to see the quantity of shoots thrown out, fully the half it seemed to me, of what the tree had made. Some had been pulled completely off, a peculiar twist taking them out as good as if cut, others were cut back to within two or three eyes of their base. This defoliation of the tree checked its vigor greatly, but not too much, it seemed, and there is not the space on such walls for trees of such large growth as seen when permitted to grow in pyramidal form. The checking and the cutting back of the branches increased the fruit bearing tendency, which was what the gardener desired to accomplish. Besides the small spurs already on the trees were forwarded to a fruiting stage, and as I was told, the crop of most all fruits treated in that way was assured, at least the flowering part was, though frosts or rains, more often the latter, sometimes prevented the flowers properly setting. At the time spoken of all the trees were full of fruit.

Besides the trees trained to the walls many are set in the open garden and trained horizontally, and the highest branch not more than five to six feet from the ground. I wish to dwell on the point of summer pruning chiefly, and to solicit attention to the matter in regard to the management of fruit trees here.

Thirty years ago a fruit grower here near Philadelphia, had an orchard of dwarf pears which were treated in this way. They were model trees, and, as I recollect, were so full of bloom in their season that the whole field was a sheet of flowers. With the growing competition in fruits the one who gets the most from his trees will win, and I am confident that attention to summer pruning will give increased fruit. Any one familiar with fruit trees knows that the short spurs they make are what the blossoms show on. Take a pear shoot made last summer, one of two to three feet in length, and watch it. The coming season it will make small side shoots near its base of an inch or so in length. These shoots will not flower the next season. But should the strong shoot have been topped in mid-summer, before its growth was completed, there is a change wrought in the little spurs, and very often they will flower the spring following their formation. It frequently happens that when a shoot is pinched off so late in the season that but little benefit is apparent to the small side shoots, a flower bud will form at the apex of the strong one. There is close connection between the checking of the vigor of a tree, whether a fruit tree or an ornamental one, and flowering, and those engaged in fruit growing will find it to their advantage to consider the subject. Besides the fruit bearing feature, all trees are more readily made shapely by summer pruning. A little work with the finger and thumb will accomplish what the saw and hatchet would have to do in winter.—Joseph Meehan in Practical Farmer.

APIARY.

Bee Notes.

In whatever manner we handle swarms, we should do it in a way to avoid killing any bees if possible, and to keep the swarm all together and allow no part of it to be left outside the hive, except a few bees that may be on the wing at the time of hiving. The queen is liable to be in any part of the swarm and may be in a small handful of bees in the vicinity that may have become separated from the principal cluster. To have a swarm right is to have all the bees, and if the queen is there at all, she is likely to be in the hive with the rest of them.

Bees usually gather some honey from fruit blossoms and this gives them a good start in brood rearing. It frequently occurs that at the end of fruit bloom they have considerable young brood in the combs and but little surplus honey in the hive and unless honey again comes from other sources soon, they are in danger of starving. This should be well looked after, and feeding resorted to at once. Colonies so short of provisions as this in spring, cannot be expected to prove very valuable, and those only that are well supplied can be depended upon.

Hives containing bees should have a thorough cleaning every spring. There is always a lot of surplus propolis plastered over the frames and hive that will be quite a hindrance in manipulating during the summer. There are also burr combs stuck about the frames and around the inside of the hive so that it is almost impossible to get the frames in and out without killing bees or damaging the combs. All this should be removed every spring, and often if necessary. It is a good plan to begin with a new hive and lift out the frames and transfer bees and all to the next hive, and then thoroughly clean this hive and go to the next and so on all around the apiary.

Bees sometimes become dissatisfied after being hived and swarm out and leave entirely. This occurred more frequently in early days when the plain box hives were used. These bees did not admit of the equipments and accommodations that the present hives do. It is very common now that a frame of young brood is given the bees. Empty frames of comb are also furnished when such are on hand, and if not, foundation comb is used instead. This gives the bees a good start at housekeeping and it only requires them a week or two to fill their hive when thus equipped. Swarms seldom abscond when thus treated, but in rare cases they do not seem to think that anything is good enough for them, and they will re-issue again, preferring to locate in some far-off secluded spot in a hollow tree.

When a swarm is issuing from the hive the bees should not be molested in any manner whatever, but allowed to congregate at their leisure and select a place to suit them to cluster and no interference with them at all, until they settle, or nearly all settle. It is not best to get excited or to get in a hurry to get them into the hive, but allow them a few minutes to get well settled, and then promptly hive them. A box just large enough to accommodate the swarm, filled with holes to give them plenty of air, may be held directly over and on the bees and with a leafy twig or a little smoke used to start them in the swarming box. They may be then carried to the hive, which should be previously arranged for them, and a portion of the bees on the box brushed off at the entrance of the hive and directly in the entrance so that they will find the way without any difficulty.

When thus started they will make a grand rush for the inside, at this moment shake off more of them and finally all as they proceed to go in. Swarms should not be left any great length of time after clustering, as the next thing in order for them is to get up and leave.—Western Rural.

Bee Hives and Fixtures.

Start the bees right and they will do the rest. This starting problem is by far the most important. We may go to the expense of the best movable frame hives and receive no benefit from them if we do not start out right with them. Any one can readily understand how to place a swarm of bees in a frame hive and arrange the hive properly, if he simply gives the matter a little attention and study.

At the present time one can scarcely make a mistake in the kind of hive to use, as there is practically but one kind now in use all over the country, and almost any one that knows anything about bees is acquainted with it. Hives are very cheap, and a hive that was formerly worked out by ordinary machinery at a cost of four or five dollars, is now made more perfectly by special machinery at a dollar and a half or less. The particular point to start out with is, that after the bees are placed in

frame hives, the frames are to be properly spaced, that is, at equal distances apart, the distance in measurement being one and a half inches from centre to centre. The hive must stand perfectly level on its bottoms, as the frames hang on their bearings, and should hang plumb in the hives. A swarm of bees after being thus put in the hive should be examined daily for a few days to insure their starting the combs straight on the frames, and if the honey be found out of place it is an easy matter to cut it out or press it in proper place.

It is best and cheapest in the long run, to procure comb foundation, and fill all the frames with it. This will always insure straight combs, and it is such a help to the bees that it puts them ahead with their work all of ten days or two weeks. By using worker comb foundation we can exclude worthless drones from the hives, and this alone is worth the price of foundation, for an over-supply of drones is always the result if bees build their own comb. Foundation comb is undoubtedly one of the best investments for the bee-keeper.

There are many persons, perhaps, that keep bees that have never seen foundation comb, or have no knowledge of its existence. Foundation is simply a sheet of pure beeswax run through dies, forming the base of the honey cell on each side, and is perhaps one-eighth of an inch thick when completed; that which is used for brood combs and that used for comb honey is very thin, equal to tissue paper at the base. The bees work upon this very rapidly.—A. H. Duff in the Western Rural.

Level Culture vs. Hilling for Potatoes.

While working in my potato field with a Breed weeder during the past summer, an old farmer came out to watch me using the new tool. I could see by his expression that it did not suit him. At last he said that he always hilled them up with a big high mound around them and thought that they did much better. He advised me to do the same, or at least try a few rows. While I was almost satisfied in my own mind that there would be no benefit from it, I finally hilled up a few rows, for I was on a soil that was new to me and thought that perhaps it might make a difference. When digging time came I got the scales and weighed those hilled and some not hilled for comparison. I found those that were hilled fell short about ten pounds on a row, and if I had hilled the field the loss would have been about ten bushels per acre.

While this experience is in no way conclusive, yet I believe it to be in line with others of a similar character, as well as the experience of our best farmers. But in driving over the country we will see many patches that are hilled up; indeed it is a more common practice than one would suppose, and it has been a study to me just why it is so, and I have come to the conclusion that it is more a matter of tradition than anything else, handed down from the time when the varieties grown and the conditions of the soil were much different from what they are now.

The old gentleman referred to gave his experience how he planted a pasture field a good many years ago, putting the hills four feet each way. The variety, Peachblows, were well hilled up and grew all summer and covered the ground with the vines, and after being killed down by frosts, they were dug and some hills yielded nearly a peck of nice potatoes. Therefore, from this experience and perhaps others of the same character he came to the conclusion that hilling was the one essential to success, and probably under the circumstances it was, with the tools they then had to work with, and the shallowness of the soil, the stumps and roots in their way a deep seed bed could not be made in any other way but by hilling.

In these days we do not have to work in a shallow, rich soil if we use the latest improved tools, but if we have the fertility we can still go down into the soil and make a deep seed bed, and put the seed in deep enough to avoid any need to hill up to keep the tubers from sun burning, and in this way we do not run the chance of having the soil dry out during a drought.

Another difference that time has made is the change of varieties. No kind that is popular at present will grow through the entire season to be killed down by the fall frosts, as did the old Peachblow and others of the same characteristics, but the best varieties we have now will grow and make a crop inside of three months. During the past summer I have grown the Sir William and Rural

Hood Farm Jerseys
THE BEST CARE, the best breeding, the best blood—all combined to make the Hood Farm Jersey superior. You should have some of the best blood in your herd that you may secure the best results in dairy products. Young stock from the great Hood Farm herd generally on hand for sale. Correspondence solicited.
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Men as Nurses.

There isn't one man in fifty thousand who is a good nurse. The average man feels as much out of place in a sick-room as a bull must in a china-store. His heart may be ever so full of sympathy, but his feet are heavy and his fingers clumsy.

In most cases when a woman's general health breaks down the original cause is weakness or disease of the distinctly feminine organism. The only permanent cure lies in the correction of all these disorders. Husbands should know that Dr. Pierce's Favorite Prescription is the only medicine that invariably cures all ailments of this nature without "local treatment" and "examinations." It acts directly on the delicate and important organs concerned. It makes them well and strong. It allays inflammation, heals all internal ulceration and stops debility in its tracks. It soothes and tones the nerves. Found at all medicine stores. An honest druggist won't urge upon you a substitute.

"I had female trouble for many years," writes Mrs. A. Lingelbach, of Granger, Sweetwater Co., Wyoming. "I tried many physicians until I was completely discouraged. Finally I took Dr. Pierce's Favorite Prescription for six months, and I am now a healthy woman. I had been so bad I could hardly walk across the floor, but I am now well and strong, thanks to Dr. Pierce."

No family should be without Dr. Pierce's Common Sense Medical Adviser. It used to cost \$1.50; now it is free. Paper-covered copy, 21 one-cent stamps, to cover mailing only; cloth binding 31 stamps. Over 1,300,000 American homes now contain copies of this great work. Address Dr. C. V. Pierce, Buffalo, N. Y.

New Yorker No. 2 in about ten weeks, to large, fine sized potatoes, and our earlier ones will do still better than that.

Recent experience leads me to think that if we can eliminate the blight from our potatoes we will be able to make them grow the entire season. But with our improved tools, deeper soil, and better varieties, it is not wise to follow a practice which might have been best in the early days.—Michigan Farmer.

Mulching to Keep Down Weeds.

The labor of the farm might be lessened considerably if mulching was practiced when it is possible to do so instead of cultivating as is the usual custom. There is no better plan to keep down weeds than to use the mulch when it is at all practicable, and some crops do well if grown under a mulch applied at the right time and in the right way.

Upon most farms there is always an abundance of wheat straw that can be utilized when we begin the work of mulching. In the absence of straw we may have refuse corn fodder, clover haulm or even trashy manure that can be used. We use straw for the reason that we think it best of all material found on the farm and most abundant. In many instances the farmer is at a loss to know what to do with his straw, and in many instances it is burned to be rid of it. We would never burn straw in any instance and especially not until we had mulched everything we possibly could on the farm. When there is nothing else to mulch try it on those points of the farm and get your fields rich all over alike.

Several loads of straw may be used each year about the fruits that are grown for other than home consumption or the market. We find that it is much better to mulch the raspberries, blackberries, currants and gooseberries than to spend time cultivating same and cutting out the suckers between rows. It requires but one good mulching to keep things in good shape for the entire year while the cultivations must be frequent and thorough to do the work right. The mulch between rows of small fruits should be of sufficient depth that weeds will not sprout through. This mulch is also very convenient at time of picking fruit as the straw keeps fruit from becoming muddy when it hangs low down, and it never is muddily under foot. There is no easier or better plan to grow potatoes for home use, or even in a small way for market, than by mulching. The finest and best potatoes we ever had were grown under straw. This mulch should be applied when the potatoes are well through the ground and should be put on the depth of five or six inches. You need then have no fear of drought and your vines will be so vigorous that bugs and blight will not damage as rapidly.

Tomatoes should also be heavily mulched when set out, and no sticking will then be necessary. Such garden crops as are usually cut short by droughts in the fall can be kept in good shape by mulching.

During the past season we tried mulching pole beans, bunch limas, and late cabbage and had excellent results therefrom. It was particularly beneficial to the bunch limas. It kept the pods off the ground and they did not rot as badly as they had done for us in previous years. It will only require a few hills of pumpkins planted now and well mulched to produce all that are needed for home use, and the crop will be a sure one, no matter how dry and unfavorable the season.—Farmers' Guide.

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People living just outside cities and large towns can (owing to their nearness to markets) make large profits in the poultry business. No other occupation pays better or is easier to conduct. It can be successfully carried on by women or boys and girls, provided they have a knowledge of the right methods of management, feeding, etc. This may easily be gained by faithful study of that best and most practical poultry paper,

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IF YOUR CHICKENS Don't Grow

DEATH TO LICE OINTMENT will

MASSACHUSETTS PLOUGHMAN

BOSTON, JULY 9, 1898.

Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.

BETTER be an A. No. 1 hired man than a no-account farmer.

EVERY son of a weed is a born thief, and the family is always numerous.

THE number of mistakes doesn't count; the question is, what have they taught you?

A TRAINED cattle dog is a real helper on a dairy farm, but at least nine out of ten cattle dogs are not well trained. Such are worse than useless.

A MAN may be a very poor farmer, but there is always hope for him if he admits that someone is doing better and he determines to know the reason.

FRUIT picked and packed regardless of looks never seems quite so good, and never finds such ready buyers. A good display is the best salesman.

If only one ornamental shrub be had, choose the crimson Rambler rose. It is vigorous, hardy and when covered with blooms will make a better show than any other single plant.

THE tendency of farm products taking one year with another is certainly toward lower prices. The only possible way to make as much profit as formerly is to learn to produce at less and less expense.

It would be almost a mercy for some farmers with a large farm to foreclose on them right away. The farm is too large and the mortgage is even larger; the contract seems likely to extinguish the man before the man gets the best of it. He would be better off to start again on a small place.

THE beet sugar men are dead set against the proposed annexation of the Philippines. Such an event would bring in vast quantities of free sugar, enough to well-nigh swamp every beet sugar factory in the country. The advantages of annexing these islands would need to be important in order to offset this consideration.

DURING the rush of the hay season, it will be refreshing to plan a little outing to come later on. Thoughts of the hills or seashore will relieve, in imagination at least, the severities of a scorching day. It is time, also, to plan for visiting some of the cattle shows, and fruits and vegetables intended to be shown must receive frequent attention.

SOMEBODY asks how to reform Farmer Slack. If he could be got to succeed in some little branch of his business well enough to take pride in it, he might gradually improve his methods in that particular direction. It might be hoped that the idea will spread. Slack is getting rather old for complete reformation, but the scheme might help his boys.

A DAIRY lecturer declares, with considerable truth, that if one-half the cows now giving milk were carefully weeded out, and slaughtered within a week the remaining half would net a greater profit than is now realized from the whole. His idea is that at least half the cattle do not pay for board and labor, and whatever they fall short comes out of the profits of the good cows.

THE endless details which go to make up success in conducting a successful dairy farm, market garden, or poultry plant, often seem like unnecessary bother to the hit-or-miss farmer. Said one of these to a successful dairyman: "I see you are a slave to your cows." So he was, but enthusiasm made the work pleasant to him, and the results were worth talking about. Success is made up of details.

ABOUT the only action taken by the Massachusetts Legislature, significant from an agricultural point of view, was the refusal to either appropriate money for, or abolish the cattle commission, thus leaving that worthy body dangling between duty and dismissal. An immense amount of talk was made on taxation revival but nothing definite was done toward this much needed reform. More bills were passed than by any previous legislature. Yet with the exception of Torrens' transfer system and street railway legislation, nothing was passed that the people cared greatly about. Much of the material will have to be threshed over again next year. Less nonsense and more good legislation may come to pass when Massachusetts falls in line with most of the other states and holds legislative sessions only once in two years.

CATARH cannot be cured with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally, and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quick medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials, free. F. J. CHENEY & CO., Props., Toledo, O. Sold by druggists, price 75c.

CURRENT TOPICS.

Both land and naval forces have been active in the operations against Santiago the past week. On Friday of last week, a fierce engagement was had with the Spanish troops. They were strongly entrenched and fought bravely, General Linars, their commander, being wounded while actively encouraging his men. The Americans fought their way forward almost inch by inch, leaving many brave men and officers upon the field. The Spaniards were finally driven back into Santiago and the city surrounded cutting off all way of escape. The victory was gained, however, only by the loss of a thousand killed or wounded on the American side, the greatest heroism being shown by our men, who were obliged to advance frequently without cover of any kind, yet did not falter. The fighting has been continued to a greater or less extent for the entire week, reinforcements having been sent to the aid of the exhausted soldiers. More troops are on the way and supplies and ammunition are being hurried to the front. General Pando, with Spanish reinforcements, has reached Santiago, it is said, but from the accounts of the Spaniards who have been captured there is a scarcity of food in the city and the soldiers are greatly disheartened. Balloons have been used in locating the enemy with very satisfactory results. The Spanish have the advantage in the fact that they use smokeless powder, while the smoke of the powder used by the Americans betrays their position to the enemy.

For six weeks the Spanish fleet under Admiral Cervera, which included the finest vessels in the Spanish navy, has been kept penned up in the harbor of Santiago by the American fleet. The sinking of the Merrimac was thought to have effectively blockaded the harbor, but recently it was found that there was still room for a vessel to pass. It was not thought, however, that the Spanish Admiral would attempt to escape at this late day from his perilous position but that he would keep his ships in the harbor ready to shell the advancing American army, and that if the city fell, he would blow up or sink his ships before permitting them to be captured by the fleet lying outside. But he accepted the one chance open to him, that of running the gauntlet of the powerful men of war lying in front of the harbor and saving his ships for future service by dashing out of the trap in which he found himself. Sunday morning when the Americans were all unsuspecting of such a move, the flag ship Infanta Maria Theresa appeared under the wall of Morro Castle, followed closely by the Cristobal Colon, Vizcaya and Quenda, and last by the torpedo boat destroyers Pluton and Furor. There was great excitement at once, and very rapid action all along the American lines. The signal for "full speed ahead" was running from bridge to engine room of every ship, and the entire fleet commenced to move inshore toward the Spanish, and the great twelve and thirteen inch guns of the battleships and the smaller batteries on the other vessels fired shot after shot at long range. As the ships ran in towards the shore it soon became evident that the Spaniards had not come out to make an aggressive fight, for they turned to the westward as soon as they had cleared the harbor and started on their race for safety at the same time sending answering shots at the American ships as fast as the men could load and fire the guns. The Brooklyn, Massachusetts, Texas, Oregon and Iowa were nearer the Spaniards than any others of the American vessels, but still most of them were too far away to get an effective range. They crowded on all steam, however, in preparation for the chase, never stopping their fire for one moment. The Spanish fleet had no effect upon the Americans, but that from the American fleet was deadly, and soon one after another of the Spanish vessels burst into flames and were run ashore so that the men upon them could make their escape. The Americans sent out boats to aid in the rescue and a large number of Spanish prisoners, including Admiral Cervera, were brought on board the American vessels, a guard being left to protect such Spaniards as remained on shore from the Cubans, who it was feared would attack them. But one of the Spanish fleet, the Cristobal Colon, the fastest in the squadron, steamed rapidly away, several of the Americans in full chase. The pursuit was kept up till two o'clock in the afternoon and she would have escaped had it been a question of speed alone, but the constant fire upon her made by the Americans proved too much and she was finally grounded some sixty miles from Santiago. She was the only one to lower her colors, which she did when she went ashore. The Spaniards captured numbered in all some 1500 men. The most remarkable feature of the combat was the fact that notwithstanding the utter destruction of the Spanish fleet and the hard fight those ships made even after they were on fire, the American vessels should escape without injury. The only thing that can be attributed to the poor marksmanship of the Spanish gunners, which has been so well demonstrated in every other conflict of the war.

The annihilation of Admiral Cervera's squadron is a terrific blow to Spain, as it was far more formidable than that wiped out by Admiral Dewey at Manila, and was the strongest one Spain had afloat. It consisted of the four armored cruisers Vizcaya, Almirante Oquendo, Cristobal Colon and Maria Teresa, and the torpedo boat destroyers Pluton and Furor. The destroyer Terror was originally with the others, but last advice place her at San Juan, Porto Rico, where she had been crippled by the St. Paul. The total cost of the vessels of Cervera's squadron was about \$12,700,000. The four cruisers cost

\$3,000,000 each, and the torpedo boat destroyers \$350,000 each.

In one respect Cervera's dash for the sea was a godsend to the United States fleet. It proved beyond question that the Merrimac does not block the narrow part of the channel to the extent of making it impassable, and it showed just where the ships of heavier draft can still get through, hence, if we send a fleet into the bay, we know the course to follow, but the danger lies in the fortifications at the entrance, which are so situated as to make it possible for them to rain down fire upon ships which are practically powerless to return it. Neither is it known how thoroughly the harbor is mined, though competent ordnance officers here make rather light of that feature of the case. The question why Cervera should have made his reckless attempt, and in broad daylight at that, is answered by those who know the peculiar formation of the narrows in which the Merrimac lay would have made a night passage extremely hazardous, and it would have been an inglorious ending to Cervera's little drama to have him lose his ships, not as victims of American prowess, but in the mere act of getting out of the harbor still held by the Spanish. There was too much of the old-fashioned idea of chivalry in Cervera's composition to let him halt for a single hour between two such alternatives.

The destruction of Cervera's fleet left the way open into the harbor for the Americans, and the news greatly encouraged the troops encamped in front of Santiago. General Shafter immediately sent a demand for the city's surrender, giving until Tuesday noon for a reply, and the removal of foreign residents and women and children to a place of safety. Unless the city surrendered, he threatened to bombard it. The Spaniards refused to surrender. The Americans, however, may not decide to bombard the city at present, but wait for more reinforcements and until Gen. Shafter can fully co-operate with the fleet.

The bombardment of Santiago has been indefinitely postponed, according to the latest advice, and it is the intention to first reduce Morro Castle, and then open a free path for the American squadron. Admiral Cervera, it is said, together with all the officers of the highest rank will be brought to this city and imprisoned in Fort Warren in Boston harbor. The other Spanish prisoners will be sent to Portsmouth, N. H. Lieut. Hobson with the crew of the Merrimac have at last been exchanged; the Spanish general agreeing to this after repeated refusals. Reinforcements are constantly being sent forward, the Sixth Massachusetts being among the number.

Fourth of July was marked by a great ocean disaster which occurred off Sable Island in a dense fog. La Bourgogne, a French line steamer, which left New York for Havre on July 2, came into collision with the Cromatyschire from Dunkirk, Scotland, and in less than half an hour sank with over five hundred of those on board. Two hundred were saved, only one woman among the number. La Bourgogne was the sister ship of La Gasconne which has had a record of disaster, and was one of a fleet of five large and swift ships. La Bourgogne was a favorite on account of her speed, her accommodations and popular officers. The Cromatyschire narrowly escaped sinking, but was picked up by the Grecian and towed into Halifax harbor.

The Fourth of July, which is usually attended with many casualties, was unusually fruitful of disaster this year, although from a different cause than is ordinarily the case. Near the close of the day, a sudden storm of wind and heavy rain arose, which did great damage. In Beverly harbor, a small steamer was overturned and many drowned, while in Boston harbor a large schooner was swamped which was carrying a party of seventy-three, but every one was saved. Hampton Beach suffered from the effects of a small cyclone, which unroofed and destroyed many buildings and summer cottages, uprooted trees and did much damage. A pavilion, in which were several hundred people was blown down, several being killed and many injured. Seven out of a yachting party of nine were drowned. Plymouth also felt the effect of the storm, buildings being unroofed and glass destroyed.

The Torrens Land Bill, which has become a law of the State of Massachusetts, will have the practical effect of relieving real estate from the burden of a doubtful title, and to give it the advantage of a ready market which is enjoyed by personal property. Under this a land-owner, after Oct. 1st, when it takes effect, may have his title to his property proved before a court of registration. His title then becomes secure against all attacks, unless fraud in securing registration is proved within a year. One result of this state guarantee of titles will be that those who seek to buy or sell real estate, or to borrow upon it, will not be put to the expense and delay of a search of title after it has once been passed upon by a court of registration. A certificate of title will be the instrument for effecting a change in the ownership of real estate or for supporting a mortgage loan.

In adopting the Torrens system, which, with several other good things like our ballot system, we derive from Australia, Massachusetts has shown her progressiveness in adopting new ideas.

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Washington News.

Commencing with July 1st, a ton of best American creamery butter will go every week to London and a ton to Manchester, England. Since April, the Department of Agriculture has been systematically shipping American butter in cold storage with the intention of establishing a reputation abroad for American butter, which, in point of fact, compares favorably with the best Danish or Australian product with which it has to compete. All the butter is stamped "American Butter," so that consumers know what they are getting. Arrangements are being made now for opening a market for our butter at Hamburg. Last year a number of such shipments of butter were made to London at different times, but this year the work is carried on systematically, so that merchants know when to expect it and what to expect, for the same class of butter is sent them from week to week. The butter is procured from New York, Iowa, Wisconsin and Minnesota. Major Alvord, the chief of the Dairying Division of the Department, has just returned from a trip through those states, where he has visited the principal dairy plants and talked personally with the proprietors concerning the opening up of foreign markets for American butter. Notwithstanding the higher price which butter now brings at home over last year, so that shipments are made by the Department of Agriculture at an actual loss, the work is being pushed steadily on, the object being solely to establish a reputation in Europe for American butter in order that producers, when price conditions are such that they desire to export butter, will find a ready and eager market for it.

UNIFORMLY HIGH GRADE BUTTER.

Although pasteurization in butter-making is not entirely new, a description of the method employed in the large creameries may be not uninteresting. In some of the creameries in the states above named, the cream from dozens of different dairies is used, each with an individuality of its cream peculiar to itself. The idea of the butter maker is to destroy the identity of all these creams and merge them all into one uniform product. This is done in this manner: The cream is all mixed in a large vat or tank and raised to a temperature of 100 degrees which kills all the germs. The objection which was once made to such treatment, that excessive heat melted the butter fat, is met by the present method of rapidly cooling the mass, which tends to regranulate the butter particles and in a uniform manner. Next a starter or "yeast" is put into the cream when it is ready for such treatment as is employed by any first class butter maker, but with the result that the butter will be uniformly first grade as though it were all from a single creamery.

MAKING SUGAR SLOWLY WITH BEET SUGAR. The Ohio Experiment Station has completed its report of beet sugar possibilities in the state, in the light of its experiments of last year. The findings of the State Chemist very closely coincide with those of the National Department of Agriculture for Ohio. The general conclusion reached is that the northern part of the state offers the best field for beet sugar production and that in that section some very high grade beets can be produced. The Station report says: "Ohio consumes annually probably more than 200,000,000 pounds of sugar. If this sugar could be produced in the state, it would give employment to thousands of people, and keep at home millions of dollars that now go outside the state for the purchase of sugar." But it adds: "This is a prize worth striving for, but in order that costly mistakes may be avoided in the establishment of this hitherto untried industry on our soil, further investigations are necessary, etc." This latter note of warning should be heeded by the farmers and capitalist of every section which is contemplating the erection of sugar plants. The total sugar consumption of the United States can at present be produced on about a million acres of good beet land, so that it is necessary to select for the erection of factories, localities where only high grade beets will grow. If there are a million acres of available land in the United States which will produce beets with 15 per cent of sugar, manifestly those sections which can produce but 12 or 13 per cent, will be driven from the market by the more favored localities. Thorough investigation as to the capabilities of the soil should be made before expensive sugar plants are erected.

LIMING OF SOILS. It appears from the writings of Pliny that liming soils for agricultural purposes was practiced by the Romans before the advent of the Christian era. With soil liming and renovating by the rotative use of clover it would seem that the ancients knew a few things about advanced agriculture as well as ourselves. However, we think we understand the reason why we use them, and by the way, some of our scientific reasons would have been considered dealings with the black arts by those ancients and would have subjected their advocates to persecution and death at the hands of the people. Liming in the United States has been practiced to a limited extent for many years. In some sections it has been extensively followed and has worked a complete trans-

formation of the soil, usually greatly increasing its productivity. Its usually beneficial effects have been demonstrated in many localities. The work of some of the Experiment Stations, notably that of Rhode Island, has shown that soils which respond profitably to liming, either on account of their acid condition, or from a deficiency of lime, are very widely distributed. It is generally conceded that lime is necessary to plant growth, and if wholly lacking in the soil otherwise fertile, no good results can be attained. But few soils, however, are entirely lacking in lime and many are amply provided, so that in many cases it would be an irrational policy to apply it. As is usual with all things agricultural, before action is taken, the conditions should be studied. The Department of Agriculture in a bulletin on liming, noting the fact that beets of all kinds make a ready response to liming on soils which are deficient in lime, suggests that this crop may be utilized as a basis for a practical and reliable method of testing the lime requirements of any soil. For this purpose lay out two plots of land, contiguous to each other and similar in all respects. Manure and fertilize the two identically, but apply lime to one and omit the other (take a plat twelve by thirty feet and apply forty pounds of lime, which would be equivalent to two and one-half tons per acre), then plant the beets and cultivate similarly. A comparison of the two growths will be a safe means of judging whether the soil will respond profitably to the application of lime. Liming is generally found to be a remedy for "sour" land. In cases where plants and heavy growths undergo decay upon soil deficient in lime and magnesia, acid or sour humus is liable to be formed which is particularly noxious to most plant growth, causing a feeble and yellow appearance. Such conditions may occur even in upland and naturally well drained soil, though more frequently in heavy clayey bottoms. Liming in all such cases is a profitable investment. But in all cases where liming is contemplated, an experimental plot is suggested before making any large outlay for a remedy which may not prove effective. There can be, too, such a thing as too much liming, particularly on light soils and this applies especially to the use of freshly slaked lime which tends to hasten the decomposition of the humus in soil containing small amounts of organic matter, thus rendering the soil more open and less retentive of fertilizers and moisture. Continued success from liming can only occur by the use of other manurial constituents in conjunction with the lime. Few, if any, cases are on record where soils originally in need of lime have failed to continue to give good results from liming when care was taken to apply a sufficient amount of other manures. Certain plants are injuriously affected by liming as has been shown by experiments; among these is the watermelon.

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—Ohio coal miners' wages are threatened.

—East-bound rates are again in confusion.

—About 900,000 spindles are idle at Fall River.

—There is a great scarcity of light sole leather.

—Business is at a standstill in many New York stores owing to confusion over the stamp tax.

—The mint coinage for the fiscal year is \$72,609,933.

—The Standard Oil warehouse at Calais has been burned.

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—The Standard Oil Company is said to have secured control of every refining plant in Canada.

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—The expense of loom changes at Fall River mills is estimated from \$5,000,000 to \$10,000,000; the cost of weaving will be greatly reduced.

—In various parts of Indianapolis some of the residents are bringing suits by injunction to get rid of objectionable saloons, on the ground that the rental value of the property has been decreased and the enjoyment of the households disturbed by reason of disorderly conduct and violations of law in their sale of intoxicating liquors. The Indianapolis News says that the application of this theory "has been already effective in several instances."

—William A. Eddy, the kite expert of Bayonne, N. J., while in Reading, Pa., took a photograph from an elevation of five hundred feet of a big fire. He had a tandem team of six kites aloft. They were being hauled in slowly when the big fire, which did \$200,000 damage, started. The kite string passed directly over the fire and the kites were caught in the vortex of hot air rising. A splendid photograph of the big fire resulted. Mr. Eddy thinks this is the first photograph of a fire taken from midair.

—Mr. Edwin Wheeler of Concord, Mass., an old subscriber to the PLOUGHMAN, and a well known farmer of that town, died on Friday of last week. He was born in Concord, Oct. 19, 1817, and from the time of his marriage in 1845 until April, 1888, forty-three years, he carried on a large farm in that part of Concord known as Nine Acre Corner. In the latter year he built and moved to the house on Elm street where he died. Mr. Wheeler was a member of the Massachusetts House of Representatives of 1870-71. He had also served the town as selectman, school committee man, assessor and road commissioner. The widow, a brother, Gardner Wheeler of Concord, a sister, Elizabeth W. Gibbs of Pawtuxet, R. I., and eight children survive him. He was a frequent attendant at the PLOUGHMAN Farmers Meetings.

GUY E. MITCHELL.

Country Real Estate.

The fruit, poultry and milk farm, with grape vineyard, comprising forty acres, with commodious buildings, belonging to Mrs. Eliza J. Holmes, and situated on Summer street, Bridgewater, Plymouth County, has been sold to E. C. Hanscomb of Reading.

An estate in Foxboro, fronting on the main road to Attleboro, has been sold by Dwight B. Taylor of Charlestown to Philip Lahee of Newton, who has bought for a summer residence.

Jefferson Daniels has sold his home stead farm near City Mills, Norfolk, to George Nelle of Attleboro.

The Otis M. Stanley farm of forty-three acres situated on Union street, East Bridgewater, together with stock and tools has been sold to J. F. Turner of Boston, who buys for a home. Price paid was \$5,800.

The fifteen-acre farm in Carver, belonging to John Peterson, has been sold to Mrs. Edward L. Rogers of Boston, who buys for a summer residence.

Papers for the transfer of the Merrill farm at Bridgewater have been placed on record at the Plymouth registry. This property, comprising a farm of 110 acres and mills, also consists of one of the largest poultry plants in New England. The buyer was Arthur F. Ayling, the Milwaukee artist, who is making extensive improvements. The consideration was \$8,000.

A high grade stock farm of eighty acres in Holliston on the line of the electric cars to South Framingham, belonging to Sylvanus Pond, has been sold to T. J. Litchfield of Everett. A large herd of cattle and all farming implements were included in the sale. Assessed value is about \$5,000.

Read and Run.

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Commonwealth of Massachusetts.

MIDDLESEX, ss. PROBATE COURT.

To the heirs-at-law, next of kin, creditors and all other persons interested in the estate of ESTES MILTON LINCOLN, late of Somerville, in said County, deceased, I, the undersigned, Judge of said Court, do hereby give notice that said Court will be held at Lowell, in said County, on the nineteenth day of July, A. D. 1898, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be on the day at least, before said Court will be held at Lowell, in said County, on the nineteenth day of July, A. D. 1898, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

Witness, CHARLES J. MCINTIRE, Esquire, Judge of said Court, this twenty-fourth day of June, in the year one thousand eight hundred and ninety-eight.

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THE HOUSEHOLD.

JULY.

I'm Mr. July; I belong to the boys; They're so glad I've come—just hear all the noise!

Torpedoes and crackers go snap! bang! or fizz!

While rockets and candles go up with a whizz! The year is half over when I come along; It is just in its prime—so hearty and strong—And hasn't begun to grow old yet, you see.

The noisiest thunder-storms don't startle me; I think I enjoy their ramblings and crashes Nearly as well as the fireworks' flashes.

There's reason why I must be mainly and brave!

The Stars and Stripes it's my duty to wave. For I am the month in which, long, long ago, This nation declared it was able, you know.

To care for itself, and so, on my fourth day, A paper was signed by men who, they say, Were wise, good and true—a paper that said God made all men free! And that's what the red,

White and blue of our dearly loved flag tries to say

Whenever it waves, by night or by day, To all the wide world; and that is just why They make such glad sounds on the Fourth of July.

—Child Garden.

THE PROUD SKY ROCKET.

A Bed Time Story.

The Little Boy and the Little Girl had been down town with the Grown Person, buying flags and fire crackers, and rockets, and I don't know what all, for the Fourth of July, and they had been to so many places and had seen so many things that they were quite ready for bed as soon as supper was eaten. Only there were so many things to talk about, and so many plans to make that the Little Boy and the Little Girl both thought it would be very nice to stay up just a tiny bit longer. But the Grown Person looked at the clock and didn't say anything, and the Little Boy and the Little Girl looked at the clock and then very solemnly at each other, and began to gather together the many parcels that they had brought home with them.

While they were putting the packages in one corner where nothing would molest them, the Grown Person began:

"Once upon a time there was a great big sky rocket—"

Two little faces brightened, and the little people ran across the porch and snuggled down in the Grown Person's lap.

"A story's part of getting ready for bed, isn't it?" said the Little Boy.

"Once upon a time," repeated the Grown Person, smiling, "there was a great big sky rocket in a great big box, in a little bit of a store kept by a Chinaman."

"Was it a great big Chinaman or a little bit of Chinaman?" asked the Little Girl.

"Well," said the Grown Person, "when the rocket looked at the Chinaman it thought he was a wonderfully big person, but beside some of the high boxes in his store, he wasn't very big at all. The rocket was a proud sort of a rocket; it had come all the way across the ocean, and thought that it must be a very superior sort indeed, to be carried so far, at such expense. It disliked very much to hear its neighbors on the shelf—"

"Why, I thought you said it was in a box?" interrupted the Little Boy.

"I guess the box must have been on a shelf," said the Little Girl.

But the Grown Person went on:

"It disliked to hear its neighbors talking about what they would do on the Fourth of July. 'I tell you what it is,' said a big cannon cracker one day, 'when I go off, I'm going to make a noise that can be heard all round the world. My brothers and sisters in China are listening for it, and when they hear it, they'll know I'm gone. The man that buys me will be glad.'"

"I'm going to be bought by a woman with a little boy," said a bunch of small fire crackers, "and if that little boy tries to tie me to a dog's tail, like I saw a little boy do once, do you know what I'm going to do? I'm going right off in his hands, and I'm just going to burn him as much as I can."

"That would be right," said the Little Girl. "Willie Jones tried to do that last year and his papa saw him and took his fire crackers away from him, and didn't let him come out at night to see the fire works."

"When the rocket heard all the fire crackers talking he said, 'That's right, make all the noise you can now, and all the noise you can when you go off! That's all you are good for anyway!'

But just look at me, when I go off, I'll shoot up into the air, away up where the clouds are, and I'll make a beautiful light with thousands of little stars and big ones, and all the people will look up and say 'oh-h! oh-h!' and little girls will clap their hands, and I'll go on and on forever, and then some day, when I grow bigger and bigger, I'll come sweeping back through the sky and people will think I'm a comet, and will write about me in their books and I'll be famous forever. That's what I'm going to do. You talk about doing anything! Why, what's a fire cracker good for anyway, only to frighten horses, and hurt children and burn holes in clothes. I'm going to be great, I am. I would not be at all surprised if all this Fourth of July that they talk about was just made so they could show me off."

"The crackers didn't say anything for they knew they didn't make much of a show in the world and they knew they do frighten horses sometimes."

"And little girls, too," said the Little Boy.

"Oh, I ain't afraid," cried the Little Girl. "last year I almost shot off a little one in my fingers."

"Just as the rocket finished his big speech," said the Grown Person, "a big man came in the door, and said, 'Sam, where's that box of spoiled fire works? That's it, is it? No dog, are they? Well, I might as well take them down and throw them in the river,' and then the man picked up the very box in which was the rocket that had talked so much and the cannon cracker that was going to be heard around the world—the man picked them up just this way,"

and the Grown Person got up out of the chair still holding the Little Boy and the Little Girl.

"And he walked down the street," said the Grown Person, "walking into

the house and toward the bed-room, "and then up another street until he came to the river, and then—heave, ho!—he threw them in, and that was the last of the proud rocket and the big cannon cracker."

And with that the Grown Person dropped the two little people in their bed, and mamma came in with long white gowns in her hand, and before you would think the rocket and cracker had time to sink to the bottom of the river the Little Girl and the Little Boy were sound asleep.

A BIRTHDAY.

America's people
Ring bells in the steeple,
They couldn't be prouder
If jangles were louder,
On Fourth of July.

The boys and their daddies,
The men and the ladies,
They raise such a racket,
My head they will crack it,
On Fourth of July.

They stuff out their pockets
With crackers and rockets
Their banners are waving
From ridgepole to paving,
On Fourth of July.

The cannon will thunder
And foreigners wonder,
What can be the matter
We make such a clatter,
On Fourth of July.

The natives will tell it,
Let every breeze swell it
A wonderful story
A birthday of glory,
Is Fourth of July.

All this hullabaloo,
And the shouts and to-do,
Mark the birth of a nation
That beats all creation,
On Fourth of July.

—N. A. M. Roe

SEQUEL TO A FLIRTATION.

It was a perfect June morning. The old town of Goosebury shimmered beneath the warm rays of the summer sun, the blue Atlantic rippled calm and serene as far as the eye could reach.

Clara Allerton, the belle of the village, swung lazily to and fro in the old hammock as she gazed dreamily out over the fair scene.

"Yes," she said to herself, "that is just what I will do; I won't refuse one. I will arrange with Harold to call for me at seven, and I'll be out of the way when the fun begins, and oh! such fun!"

The annual ball that took place on the Fourth of July was now the great coming event of Goosebury. From the four corners of the town all gathered together at the old Town Hall. Every one who could obtain any sort of conveyance took his best girl; carriages were engaged for weeks ahead. For this was long before the days when electric cars began their buzzing, and the Town Hall, where all entertainments were held, was set down plump in the centre of the town, notwithstanding this was miles from either village; thus East Goosebury was satisfied that, though in no way was the hall convenient for her, it was just as inconvenient for North, West and South Goosebury, and vice versa.

You may be sure these merry rides up to the old "town house," and a special treat it was to have a young gentleman drive up with an elegant turnout, making great display of kid gloves and snaps of the long whip for the benefit of prying neighbors, who in a manner now, of course, quite obsolete, peeped gently through the blinds or stared boldly from the doorways, and escort Miss — to the ball.

Now Clara Allerton was the prettiest of a swarm of pretty girls, really the very prettiest girl I ever saw (I have seen her and I can vouch for the fact), but Clara was a desperate flirt. There were flirts in those historic days, and every nice young man in the village felt sure he was the only one she really cared for.

Now judge if you can of this situation. Here was this lovely maiden with sixteen notes in her lap—sixteen invitations to the annual ball. She must decide which one to accept. At last, having thought out a satisfactory plan, she wrote her acceptance of fifteen invitations as follows:

"Miss Clara Allerton accepts with pleasure your invitation for the Fourth of July and will be ready at 7.30 o'clock."

But to the sixteenth she wrote: "Be sure to arrive at seven sharp."

You do not need to be told that Clara was a mischievous little sprite, who had been petted and spoiled till she had no thought of any one's pleasure but her own.

With what keen delight she mused that evening on the great sport it would be to have those fifteen "fellows" drive up one by one only to find her gone.

"What will they do?" she laughed. "How the neighbors will stare!" But she laughed too soon, as you shall soon see.

"Will, do tell me whom you are going to take next Wednesday night, won't you?" begged Will Harris's sister, Nell, on the morning of the third.

"The handsomest girl in Goosebury, Nell."

Well, I don't see who you can mean, Will. Clara Allerton is the very handsomest, of course; no one ventures to dispute that, but she is going with Carl Willis," said Nell; "his sister Lilla told me so."

"What on earth are you talking about, Nell?"

"Just what I said; I know it is true, because Lilla showed me the note she sent Carl; it dropped from his pocket and Lilla hid it to tease him."

"There must be some mistake, Nell, but you keep quiet about this. I am going to see Carl." So off he went, and as these young men were chums, it didn't take long to discover that there was something wrong, and a little detective business on the part of Nellie brought to light the fact that there was a little scheme on the part of Clara that would result in some one's mortification.

Goosebury young men did not enjoy being made fools of, and in a very short time a scheme of vengeance was properly planned and carried out. 'Twas the Fourth of July, the same old glorious Fourth as usual. Lovely weather and lots of excitement, but now the small boys are tired and longing for

their beds, the antiques and horrors are a thing of the past. Patriotic speeches, gunpowder and all the familiar old programme of a regular Independence Day celebration—all have come to an end. Evening is drawing near, and hurrah for the ball! Now the big boys and girls have their innings.

Seven o'clock strikes, and out of the window of the Allerton homestead peeps a pair of radiant eyes. Clara is in perfect readiness to start when that expected buggy shall appear. Perhaps she is a little eager to be away from the scene of action. What do her wondering eyes behold but an old-fashioned omnibus with two white horses gayly decorated with red, white and blue rosettes and streamers. It comes to a dead stop in front of her gate.

Out of it quietly step sixteen young gentlemen in evening costume, each with a rosette of the national colors on his breast. One stands holding open the carriage door, the others march solemnly up the path two by two, half, form in ranks of seven on each side, who stand hat in hand, while the sixteenth man rings the door bell and asks for "Miss Allerton. Her carriage is waiting."

"Poor Clara! This is a severe lesson to the mischievous creature, but being a true blue Yankee girl, it would take more than this to daunt her matchless spirit. As soon as she understands the situation she does the only thing possible—she accepts the arm of her escort and beneath the amazed eyes of the horrified and scandalized neighbors marches between those solemn ranks with cheeks like a red, red rose. Clara goes to the ball with her escort of sixteen.—Boston Post.

Teddy.

"Tomorrow's the Fourth," said Teddy, "and I'm going to march with the boys, and we're going to have a jolly time!"

Late in the evening Uncle George came to the city. He brought a bundle for Teddy.

What do you think was in it?

A suit of soldier-believes. None of your paper make-believes, but regular made, with brass buttons and stars, and a gun as nearly as possible like a real gun.

Dressed in all this grandeur, Teddy stood on the front porch the next morning.

"I'm not going to march with the boys," he said; "I'm not going to be seen with those old paper hats and tin trumpets." So Teddy kept still as the boy-soldiers went by.

How they laughed and shouted and waved their flags. What a good time they seem to be having.

"Hello, Teddy," they cried; "Why don't you come?"

But as they look closer and saw his fine clothes, they stopped.

As Teddy gazed after them, a lump came into his throat. It seemed so strange not to be with them.

He went in the carriage with mamma, and sat for a long time hearing a speech which he could not understand. When the boy-soldiers came by in the procession, hot and dusty and happy, he began to wonder, if after all he was having such a good time.

Late in the day he was again on the porch.

"I've had a real mean day," he said, with something in his eye, which would have been a tear if it had not been the Fourth of July. "I'd rather go with the boys than have all the soldier clothes in the world."

"Hurrah! Hurrah! Rub-a-dub-dub."

What was it? Were those boys marching again?

Of course they were. Did you ever know who had enough marching on the Fourth of July.

"Wait!" cried Teddy, "I want to come, too."

"Ho! We don't want you. You're too big for the rest of us."

"I'm not! Here—Teddy handed over his shining gun to the captain. Then he snatched off his feathered hat and made a boy change his paper one for it. "Now we're ready. Hurrah! hurrah!" and away they marched.

Anecdote of Commodore Schley.

How Commodore Schley got his first command is an amusing episode in his early career. After leaving the Niagara he was promptly promoted to a lieutenancy and assigned as executive officer of one of the ninety-day gunboats, the Owassa of the Gulf Squadron. Her commanding officer—his name is of no consequence and he is dead now—was a devotee of John Barbeycon, and periodically had to retire to his cabin for repairs, where he usually stayed a week. The Owassa was stationed off Mobile and was of a small squadron of which Captain James Alden of the Richmond was senior officer.

One day a quartermaster of the Richmond reported to Captain Alden that the Captain's gig of the Owassa was approaching, the captain's pennant flying. Supporting his visitors to be the captain of the Owassa, Alden put on his uniform coat, the side boys were ordered and the boatswain's mate made ready for his three pipes at the gangway. When the Owassa's gig came alongside the man who sprang up the ladder was Lieutenant Schley.

"I expected to see Captain — of the Owassa," said Alden with slight sarcasm.

"I am commander of the Owassa, sir," said Schley.

"Since when?" asked Alden.

"An hour ago, sir," said Schley.

"Where is Captain —?"

"Looked up in his cabin, sir, drunk."

"Who locked him in?" asked Alden.

"I did. I first put him under arrest and then shut him up in his cabin. Then I took command of the ship, and here I am to report for orders."

Alden was fond of a joke, and he was at first disposed to laugh at the young man's summary action, but he said,—

"Well, the first order I'll give you is for you to lower that pennant in the gig, go back to your ship, sir, unlock that cabin door and restore Captain — to duty. Then report in writing if the captain's illness still incapacitates him and I will know what to do. Don't be in too great a hurry to get command of a ship, Mr. Schley!"

THE HOME CORNER.

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By special arrangements with the BAZAR GLOVE-FITTING PATTERN CO., we are able to supply our readers with the Bazar Glove-Fitting Pattern at a very low cost. It is acknowledged by every one that these patterns are the simplest, most economical and most reliable patterns published. Full directions accompany each pattern, and our lady readers have been invariably pleased with them in the past. The coupon below must accompany each order, otherwise the pattern will cost the full price.

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Cut this out, fill in your name, address, number and size of pattern desired, and mail it to—

THE HOME CORNER, MASS. PLOUGHMAN, BOSTON, MASS.

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Enclose ten cents to pay expenses.

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separate waists of silk or fine woolen as well as cotton fabrics, this model will be found excellent, it being simple in construction and suited to the applied decorations that abound in an almost endless variety of designs. Tucking can be used in the place of the ribbon as here shown, if the tucks are made in groups in the material before the pattern is laid on. To make this waist for a lady of medium size one and three-fourth yards of material forty-four inches wide will be required. The pattern, No. 7414, is cut in sizes for a 32, 34, 36, 38 and 40-inch bust measure. With coupon, ten cents.

Suspicion now points very significantly toward plain effects in waists for the fashion of the near future; therefore small accessories will be more in demand than ever in order that one may change the appearance of a costume intended to do service for various occasions, says the Woman's Home Companion. These detachable elements of woman's finery can be made much cheaper at home than they are bought at the shops, but taste and neatness are called for in their construction. The simpler they are made the prettier, and less home-made in appearance will be the result.

Fichus are always worn, and just at the present moment they are quite the rage in Paris among the best-dressed women. For summer gowns that are cut away at the neck they are always worn, and are a soft and pretty addition. Moreover, they cover a multitude of sins connected with the bodice carried over from last season. They are always prettier when made of the sheerest of materials devoid of dressing, Mull, net, lace, chiffon and lisse are the materials most in use. Where they are intended as really a part of the costume they are frequently made of the material used in the gown, providing it is not too heavy. A fichu may be made of ivory-white chiffon in two very full, soft frills that are edged with real cluny lace headed with lace beading, through which satin ribbon of any color one may wish is run. The foundation, which only shows at the neck, is a three-cornered piece of chiffon cut rounding at the back, and runs long and narrow at the front, where it naturally falls in jabot fullness.

Stoles of fur and gauzy materials have been greatly worn for the past two seasons, but this summer finds them still in the parade of fashion seen daily in Vanity Fair. They are the most graceful and becoming of all neck-dresses, giving the appearance of greater height to the short woman, and call attention to the grace of the tall, slender woman. Decidedly the prettiest for summer wear are those made of net, which should always be made quite full, and reach the bottom of the dress-skirt. One made of black Brussels net was dotted here and there quite closely with small jet beads, having a full, plaited ruche around the neck and full ends reaching the edge of the skirt. Three rows of jet fringe, spaced two inches apart, trimmed the ends.

Collars are so numerous in design of cut and coloring that one is at a loss to make a choice. Sailor effects are carried out in both sheer and heavy materials, and a severe style is adhered to in either case.

Some have a severe sailor back, and from the shoulders down the front hangs a soft net or chiffon stole. These, if made large enough, look quite like a spring wrap intended more for ornament than use.

Chemisettes and vests are quite as varied as they are pretty and becoming. Some are made severe in tailor-made style, and others are fluffy and soft-looking. All materials from the sheerest gauze to the heaviest cloth are brought into service in these fronts that seem almost indispensable in these days of fleeting styles. They add much to the open jacket, and are dressy as well as easy of adjustment and construction. Belts not only share honors with dress accessories for this summer's wear, but seem to claim more attention than the gown itself. We all wear belts, be we stout or lean, short or tall, and no one seems to question their becomingness. Jeweled belts have had such a long run, and are now made in such cheap imitations, that the belts of leather are more used by women who make have something new. The old-time belting of corded silk in white, black and all the pretty shades of color are now again in vogue, and are simply fastened in front with a clasp. Just at this time, when war is the talk of the day, the leather belt with a clasp in military style is quite the thing for the summer girl. It is usually quite large, and, it possible, must have a history of other war days.

The daintiest petticoats for summer wear are made of pink and blue batiste, with embroidered flowers for trimming. Rumor has it that the time honored white petticoat will this summer be revived in my lady's wardrobe, and that the silken one will shrink away in shame at its defeat. Surely nothing is more feminine and dainty than the prettily trimmed white petticoat.

As the days grow warmer hoseiery grows gay and shoes plainer. The plain black stocking has come to be almost the exception in this day of stripes, spots, plaids and all sorts of embroidered effects.

White cuffs and straight around linen collars have the lead with shirt-waisted femininity, while the sleeves of the shirt-waist have perceptibly diminished in circumference. Other sleeves are once more boasting the full, soft frill of lace or chiffon at the wrist, and many pretty weaves of gauze are to be had for this use.

Military buttons are used instead of the small studs for shirt waists, and with these are worn the military belts so much affected by patriotic American girls.

The warmer the weather the thirstier the people become, and almost every kind of cooling drink is welcomed says the Household. Of late years fruit syrups are bottled and ready for use, but they are more or less expensive, when purchased in this way, and can often be made at home at much less cost.

Strawberry Syrup.—Pick over two quarts of rich, ripe strawberries—the field berries give the best flavor. If they are sandy, wash them in a colander few at a time under a faucet of cold water.

Add bulk for bulk of fine granulated sugar to the berries—for a pint of strawberries a pint, which is a pound, of powdered sugar—mix well together and let them stand in a covered double boiler and cook for about half an hour.

At the end of this time mash the berries a little for the juice to run freely, and strain them through a jelly bag. Heat the juice until it begins to simmer at the edges of the kettle, but not until it boils in the centre. It should remain in this condition about an hour without boiling, in order to sterilize it.

Now sterilize the cans in which the syrup is to be kept, by filling them with boiling water and immersing them with their covers in boiling water, letting them remain about three-quarters of an hour; then take them from the water, empty them, and fill with the strawberry syrup. Put on the rubbers and covers, and when the cans are cold tighten the covers, set them away in a cool, dark place until they are needed.

When preparing the drink fill the tumbler one-third full of the syrup, add some shaved ice, and fill the tumbler with water. It is a delicious beverage and one that is always appreciated. The syrups here given are practically the same as those used in soda fountains. The raspberry syrup is made in the same way as the strawberry, except that three-quarters of a pound of sugar is allowed for every pint of the fruit.

Current Syrup.—Pick over and wash the currants, measure them and put them on the stove in a porcelain kettle to heat. Remove them after a half-hour or so and mash with a wooden masher to extract all the juice. Then put through a jelly bag or strain through cheese cloth, and for every pint of juice allow one pint or one pound of fine granulated sugar, and put on the juice to heat the same as for strawberry syrup, until it begins to simmer at the edges but does not boil in the middle. Let it remain in this condition about thirty minutes to sterilize it. Then sterilize jars and covers in the same way as for strawberry syrup. Fill and seal.

Grape Syrup.—Put the grapes on to heat. Use either wild grapes or any of the cultivated varieties. Mash them when well heated. Strain, and to one pint of juice add two-thirds of a pound of sugar.

Let it simmer the same as for strawberry syrup, then fill jars and seal them tightly.

Pint cans are preferable to the quart cans for all these syrups, as they are apt to ferment a short time after opening, if the contents of a can should not be used at once. They should all be kept in a cool, dark place.

Strawberry Filling for Layer Cake.—Beat stiff a pint of cream, and add three or four tablespoonsful of fine sugar and one cupful of mashed berries. Spread between the cake just before serving.

FREE COUPON.

Cut this out and mail it to the office of the Massachusetts Ploughman, giving name and address, for one package of

WARD'S INODOROUS CONCENTRATED SOLUBLE PLANT FOOD.

OUR HOMES.

THE BETTER WAY.

Who serves his country best?
Not he who, for a brief and stormy space,
Leads forth his armies to the fierce array.
Shed the time of turmoil and unrest,
Languish of peace succeed it and replace;
There is a better way.

Who serves his country best?
Not he who guides his senate in debate,
And makes the laws which he prop and
day;
Not he who wears the poet's purple vest,
And sings her songs of love and grief and
fate;
There is a better way.

Who serves his country best?
Who sows the tide that lifts her nobly on;
For speech has myriad tongues for every day,
And song but one; and law within the breast
Stronger than the graven law on stone;
There is a better way.

Who serves his country best?
Who lives pure life, and doeth righteous deed,
And walks straight paths, however others
stray;
And leaves his sons as uttermost bequest
A stainless record which all men may read;
This is the better way.

No ship but serves the slowly lifting tide,
No dew but has an errand to some flower,
No smallest star but sheds some helpful ray,
And none but man, who lives within the breast
Made the firm bulwark of the country's
power;
There is no better way.

HER CHILDREN.

BY ANDREW COMSTOCK MCKENZIE.

It was after the short rainy season, which is only a drop of water on the parched alkali plains of the Three Crosses, that the company of the company's desertion in the desert around the Las Polomas hot spring, and were having a hard time of it. It was not so much the desert itself, though the Mexicans do call the sandy plain "The Voyage of Death," but the range lies along the western bank of the upper Rio Grande, where quicksands, placid in their power, spread their nets skillfully into the borders of the desert, and where the thorny tomat thickets grow higher than a rider's head. At night, the boys had ridden back to the wagon with their shirts in rags and covered with blood, but a bath in the hot spring took the smart away immediately. It was surely a wonderful spring for healing.

After supper, the cowboys got out tobacco and cigarette paper and fell to keeping silent, which is a feature of the cowboy character, a fluent talker being invariably regarded with contempt among the rough riders of the solitary plains. The silence of the deserts has soaked into them, though they are hospitable to a marked degree. That summer, the outfit had a tenderfoot along with them. He was an Eastern man who was working for his board with the intimate object of regaining the health he had lost in the East. The tenderfoot used to grow restless during the long silence, and seeing that no one else was going to speak, he himself began talking in a reminiscent way, as if he was thinking out loud and did not care if the boys listened or not.

"I was badly laid up with rheumatism when I first came to New Mexico," he began, "and I guess I should yet be limping around the Chinaman's boarding-house in Hillsboro if it had not been for Creole Moore. It was just before the sheriff from El Paso gathered old Creole in for rustling Quarter Circle Bar cattle in Texas."

"Young man," said Creole, "I'm not trying to criticize your system none, but what you need is biling. That's a hot spring out in the Polomas desert, about fifty miles from here, that is just swarming for sick tenderfoot. It's plumb bound to cure you. The Injuns have soothed their aches in it, and the cow-punchers have risen rejoicing from its depths and it ain't going to hurt you none. I pack a burro and saddle a bunch and pull your freight for Las Polomas hot spring, and you are sure cured."

"So I trailed out here, pitched a wagon sheet for a tent, and was cured by the blessed spring down yonder in six days, though about all my strength was boiled out of me along with the rheumatism. The dreary solitude of a sagebrush desert was new to me then. I got lonely and then desperately blue. One noon, when the hot gravel of the desert waved in the glare till I could tell sagebrush from cactus, I looked out from under the shelter of my rifle, supported by the tall stalks of the century plant, and saw a small prairie sparrow crawl over the divide. I have been on long voyages and have spoken vessels after seeing only a blank ocean for many days, but I never felt half the excited pleasure that I did on seeing that two-horse wagon move lazily across the desert towards me. I hastened to throw the saddle on my pony and galloped to pilot the wagon through the gulchland."

"Howdy, stranger?" called out a little man, whose face was covered with a stubbly beard which from his mirthful expression, seemed to denote that the owner really preferred no beard at all, but that it was only occasionally he could afford to indulge his personal taste in the matter. He sat humped up on the seat, and spoke from under the amuse of a greasy slouch hat, pulled down to hide what little of his face his beard had left free. "Spring sailing tolerably?" he asked with some anxiety; and when I assured him the spring was in first rate working order, he half turned in his seat, and said triumphantly: "That, mother, I told you 'd be plenty for to wash 'em in, and we not hurry none!"

"At this, the pucker-acting that drew together the canvas top was pulled open, and I saw in the enlarged oval a face that made me smile not in derision, though the face was very plain, but because it so beamed with a wholesome, showing comfort that I could not help showing the quick pleasure this face gave me in its loneliness. It was the face of a middle-aged woman, stout and large-armed, with a vanished waist line and a broad bosom on which a dozen tired little heads could find a pillow. Her eyes were large, and of a pleasant blue, while her face was wrinkled with the creases of a thousand smiles; for she did not hesitate to smile, although her

expansive good-humor showed yellow, crooked teeth, a sunbonnet hung by a string over her broad shoulders, and her hair was arranged in the tightly drawn but sure-to-stay-up knot that all women would wear if there were no mirrors in the land. Her sleeves were rolled up, as if she was constantly on the point of making something good to eat and the whole homely combination beamed on me with such kindly good will that I laughed aloud in high spirits.

"She nodded and beamed on me as I pulled off my sombrero and bowed low over the horn of my saddle. I notice that the habit of not seeing women makes a fellow extra polite when he does meet one. Then she turned her head back into the wagon, and drawled in a mellow, caressing way: 'I'll sure slap your heads off if you don't quit pushing each other!' She beamed on me again, and explained: 'Them's my two kids. They are both girls, and powerfully tormenting. The oldest is Lulu Clarissa Fenton, and she's twelve, being born there or thereabout on the old Mormon trail in Utah. The youngest is Fern Charlotte Fenton. She ain't no more than seven, and is born on the silver trail in Oregon. We all are going into Colorado somewhere, and when I heard on this hot spring I says to Jabez—him's my husband a-driving—I says: 'Jabez, it ain't more than forty miles off our trail, and the children need scrubbing powerful.' You see we aims to bring our children up just as well as we knows how, and give them all the advantages we can; so here we be, and here we lingers tonight."

"Evidently a fierce struggle was going on under the canvas. At last two little heads wiggled under the big arms, and two tanned faces thin and solemn peeped out at me.

"Mar," said one sharp little treble, "La-slapped me."

"Mar," chimed in the other shrill voice, "Fern pulled my hair."

"My, my, my! I'll sure whip you both to death," replied the stout woman, and she kissed both the hot little faces.

"I piloted the wagon through the quicksands, helped Jabez strip his horses, and shared my mesquite wood with Mrs. Fenton. When the glare of the moon wore away, she marched the children to the spring and soaked them conscientiously in spite of their excited cries and splashing. After the children had been 'boid' to a nicety, she rounded them up in the shade of the wagon and produced a formidable black comb."

"Them curls of yours ain't had a real proper combing out since we quit California," she announced, decisively. The children protested, but she planted them in her broad lap and began operations with stern statement: "No child of mine is going round with cockleburrs in her hair, like a coil which has lost its mar." For the next hour I heard her cooing and cooing, like a hen with her chickens. "My, my, my! what snarls! Lord a massy, look at that but Lulu Clarissa. Well, thank heavens, your little necks are clean anyway," and so on, in placid tones, while the children shrieked and jumped about like jackrabbits.

In the cool of the evening, Mrs. Fenton, a child clinging to each hand, came to where I sat smoking under my wagon sheet. Jabez sauntered after her, and silently accepted my proffered tobacco. Having learned that I came from the East, which to her meant anywhere east of the Rio Grande, Mrs. Fenton warmed into confidences regarding herself.

"When I married Jabez, here," said she, beaming on her silent husband, whose forehead I had yet to see, "he punched cattle in Montana. Jabez had two ambitions: one was to have a wife, the other was to own a hen ranch. He was powerful fond of hens from his youth up. When we were married, we sort of went a looking for a likely hen ranch. We got a wagon outfit and trailed it along slowly till we got to Utah, where we settled down and raised six months. Lulu was born there, and I said it was bad enough to have a child born among Mormons without raising her among Mormons. When I put my foot down, Jabez hitched up, and we trailed it over into Oregon for awhile. Fern Charlotte was born there, but she was mighty pindling. 'Jabez,' says I, 'this climate sure ain't good for Fern. Jabez, you hitch up. What should be our aim in life if it ain't to look after the best interests of the children?'"

"He hitched up, though he had night on his mind, and he had night on his mind. We trailed it around California for a while, till finally Jabez got a small fruit ranch over the Mexican line; but after awhile I found there was no church there save the Catholic church, and no school save the Catholic mission. I told Jabez we wasn't going to have no child of mine brought up under Rome. 'Jabez,' says I, 'hitch up.' So we wagoned it around Arizona and New Mexico, till about a year ago we settled in silver and took to hens. Jabez was doing right smart, having over a hundred and fifty hens, and getting eighteen cents for eggs. Then the railroad reached the camp, and Kansas eggs came in. The stores got those Kansas eggs for thirteen cents, and would not give us no more. So we began to lay behind, and wasn't able to save a cent for the children. What would the poor things do if we should be taken from them, and the Injuns getting so mean since the troops at Ft. Bayard were sent East? So we sold the hens, bought the new red wagon and hitched up, trusting the Colorado people don't take kindly to Kansas eggs."

"At last, Jabez broke his long silence. 'Drat Kansas!' he said, with his teeth set hard on his pipestem. The woman looked at him in sympathetic silence. 'I ain't no modest man,' he continued. 'I aims high. Before I dies I aims to have four hundred hens, and every one of them laying regular.' 'Mar!' called a shrill voice from a towed head, now pilloved on Mrs. Fenton's lap, 'we're sleepy.' The stout woman smiled her warm, expansive smile. 'I reckon I'll have to go,' she said. As she climbed with the children under the wagon cover, I heard her say gently: 'I'll sure slap you all to sleep if I hear another word out of you.' Jabez, however, burst

into enthusiasm before he left. After staring in silence at his outfit for nearly half an hour, he pointed to where it lay in the moonlight. 'What,' he exclaimed, 'is as pretty as a red wagon!'

"While Jabez was again hitching up in the morning, Mrs. Fenton brought her little ones to me to be given a lesson in reading and spelling. 'We ain't no scholars ourselves,' she explained, 'but we aims to give the children every advantage we can.' Meanwhile, the wagon went on ahead, Mrs. Fenton planning to overtake it when it reached the heavy sand of the desert. At last she beamed good-by, insisted on the children kissing me, and walked away through the thorny bushes by the edge of the yellow river, which swirled and growled louder than ever at the sight of the children so near its clutch. It was only a step from the thorny tomes to the smooth, dry strip of quicksands that had been left temptingly exposed by the falling river."

"Mrs. Fenton had barely passed from my sight around the bend when Fern released her moist little hand from its motherly protection, and began picking the yellow flowers by the path. In this she lagged behind the other two. Finding the tomes path difficult one, the child ran out to the smooth beach, that she might the sooner overtake her mother. The alkali crust bore her slight weight for five or six steps, then the quicksands gulped her in with a chuckle of satisfaction. She sank to her knees, then to her waist, and began sinking more slightly. All about the sands quivered slightly as they drew the little one down to a sure death, but very gently. The frightened child screamed and screamed again, and the mother charged back through the brush, dragging Lulu Clarissa with her. The tomes where Mrs. Fenton came through looked as if a mad steer had plunged through it."

"When she saw Fern Charlotte's fatal plight, she moaned aloud, and sobbed out: 'My, my, Fern Charlotte, you bad girl, come out of that immediately, and you just after a bath!' She sat Lulu Clarissa down hard on the bank. 'I'll wring your little neck off you move from there,' she admonished her. 'You yell for that Eastern man. Carefully taking off her sunbonnet, she ran forward and made a desperate jump to where her child was sinking so close to safety. In some way she sank close to Fern, and managed to help the child climb on to the broad shoulder, already almost engulfed. There the child nestled and sobbed while the mother, quite forgetful of her own fast approaching death, comforted and cuddled the little girl as only a real mother can. Now the sands were quivering and shaking violently, and the river, which Mrs. Fenton, undismayed, gazed upon from almost its own level, roared in hideous triumph. It was the sands shaking with silent laughter, and the river laughing boisterously at the folly of a fat woman who had jumped into the insatiable depths which had already swallowed thousands of cattle, and was still hungry. She soon stopped struggling as she realized the quiet power, which tugged at her feet, tugged harder and pulled her down faster when she struggled. So she kept still, and as she sank she encouraged Lulu to scream, while she herself screamed admonitions at her. 'Be sure and be thoughtful of your par, Lulu Clarissa! He'll miss me a heap. Look out and keep his buttons on. It ain't nearly so hard now they make overhauls with copper rivets, she would cry out, as slowly the sands crept nearer her lips. Then again she would turn to murmuring gentle, comforting words to the child in her arms."

"Lulu Clarissa did her work well. I heard her first shrieks, and my heart sank like lead. I jumped for my pony, picketed, fortunately, close at hand, and already bridled. I had my saddle cinched in a moment, and my pony around the bend on a dead run. As he ran, I loosed the lariat coiled around the saddle horn and was ready for instant action. It was a short cast from the bank and the noose settled around the child at the first throw. The mother kissed the little one, and turning my pony into the tomes, I yanked Fern Charlotte through the mud like a catfish on a hook. Lulu Clarissa gathered her in."

"Thank God. Now I don't worry no more," said the still placid voice of Mrs. Fenton, whose head alone was visible above the quicksands and who was surely going to join the thousands of cattle if she was left there five minutes longer. When I made my second throw Mrs. Fenton wriggled free one hand, dripping with mud, and pushed the loop into the soft mass till she could pass the rope under her arms. My pony could throw and drag fifteen hundred pound steer, but even with the rope wound fast around the steel horn of the saddle he had a hard job with Mrs. Fenton. Those sands have a tremendous grip. 'Don't mind me. Just pop it to that broncho,' Mrs. Fenton said, saying cheerfully. And I did jump him till with a loud gulp of rage from the sands, the pony dragged her to the firm bank. She was a most ridiculous-looking figure as she lay there faint with exhaustion, but the children howled loudly."

"Young man," said she, beginning to beam weakly, 'will you please lode along and tell Jabez to hold his horses till I spank this muddy Fern Charlotte to a blither and give her another bath.'—Watchman.

THE BELL BOUY.

They christened my brother of old—
And a saintly name he bears—
They gave him his place to hold
At the head of the beffy stairs,
Where the minister-towers stand
And the breeding kettles ring.

Would I change with my brother a league
(Shoal! 'Ware Shoal!) Not I!
In the flush of the hot June prime,
O'er the floor side aisle
I hear him hurry the chime
To the bidding of checked Desire—
And the wild boy-major dies.

Could I wait for my turn in the pimpling
choir?
(Shoal! 'Ware Shoal!) Not I!
When the smoking shed is blown,
And the great wind-rack lowers,
Apart and at peace and alone,
He counts the changeless hours
He wars with darkling Towers
(I war with darkling Towers)

Would he stoop to my work in the gusty
mirk?
(Shoal! 'Ware Shoal!) Not he!
There was never a priest to pray,
There was never a hand to hold
When they made me pour I o'er the bay,
And moored me over the Shoal,
I rock and I reel and I roll—
My four great hummers

Could speak or be still at the Church's will?
(Shoal! 'Ware Shoal!) Not I!
The landward marks have failed—
The fog-bank eludes unguessed—
The seaward lights are veiled—
On the borders of the sea,
But my ear is laid to her breast.
Could I wait in sloth on the Church's oath?
(Shoal! 'Ware Shoal!) Not I!

At the careless end of night
I thrill to the nearing crew—
I turn in the nearing light
And call to the drowsy crew,
And the mud boils foul and blue
And the blind boy looks away
Do they give me their thanks if I clear the banks?
(Shoal! 'Ware Shoal!) Not they!

The beach-pool eke and skim—
The bursting spray-heads freeze—
The grey-grained ice of the seas,
Where, sheath from blit trees,
The plunger collers lie,
Would I barter my place for the Church's
grace?
(Shoal! 'Ware Shoal!) Not I!

Through the burr of the whirling snow,
Or the black of the inkly snow,
The lanterns gather and grow,
And I look for the homeward fleet.
Rattle of block and sheet—
Ready about—Stand by!
(Shoal! 'Ware Shoal!) Not I!

I swoop and I surge and I swing
In the rip of the racing tide—
By the gates of Doom I sing—
On the borders of the sea,
A ship-length over the sand,
Fretted and bound I bide
Peril where I enter
Would I change with my brother a league in-
land?
(Shoal! 'Ware Shoal!) Not I!

—Rudyard Kipling.

FIGHTING WITH FIREWORKS.

The employees of the Brownville Iron Mills were out on a strike—that is, the old force was. A few "scabs," as the strikers called them, were working on half time, but that was all. The strike had continued for several weeks, but there had been no violence. The strikers were firm in their position, but they had thus far made no effort to interfere with the new men.

The mill were located about two miles from the town. They included three large buildings and a half dozen smaller ones. A high board fence enclosed them on three sides, on the fourth ran the river. The mill yard was of considerable size and a narrow lane, fifty yards long, led to it. A stone wall, ten feet high, extended on either side of this lane, and at the end a stout gate guarded the entrance to the mills.

It was shortly after dusk on the third of July that three boys stole up to this gate carrying a good sized bundle. There were a lot of old boilers and pieces of worn out machinery lying along the wall, and it was between two large barrels that the boys halted and put down their burden.

"Gracious but that's heavy!" exclaimed the tallest of the three. "I had no idea they'd weigh so much."

"Think of what's in it," answered Fred Sherman, one of the others.

"We haven't looked in it yet. What do you say, Jim," said Jack Barclay. "Shall we open it?"

"Yes, let's," replied Jim. "Then we can stow it all away in the end of this pipe where the dew can't get at it."

The three boys bent down and quickly untied the twine. Then stripping off the wrapper they took out a number of smaller packages, each done up in brown paper.

"Aren't they beauties?" cried Jim, as he tore the paper from one of the packages and disclosed a couple of dozen of giant firecrackers, each fully eight inches long. "Maybe they won't make a racket!"

"They aren't a circumstance to these, though," exclaimed Ned, as he held up six which were half as large again as the first. "These are young cannons." The boys gazed in admiration at the firecrackers, dimly revealed by the few stars which the dividing clouds did not cover. Then they turned to the remainder of the package. These included two boxes of torpedoes as large as walnuts and two big bundles of Roman candles, besides a large quantity of firecrackers of ordinary size. All these they carefully deposited in the hollow of a large iron pipe, as Jim had suggested. Then with their backs against the nearest of the boilers, they began talking over their plan.

"It's lucky we came here," muttered Ned. "We'd have had some one down on us if we'd stayed in town, or close by. I wonder what time it is, Jack? Take a look at your watch."

Jack Barclay was about to comply when a low "Hush!" from Jim made him pause and look up quickly. For several seconds no sound came to their ears. Then there was heard a crunching of feet on the gravel; two men were approaching. The newcomers, whoever they were, stopped at the end of the boiler behind which the boys were concealed, but on the opposite side. The latter did not betray their presence. They were curious to know what anyone could want at this place at such a time; for the mills were shut down until the fifth. They lay quite still and listened.

Each lawless thought will mar the plan,
Each wasted day will stint the man.
Wouldst thou excel? Let purpose rule!
A thread of gold from sun to sun!

—James Buchanan.

In idle wishes fools sadly stay;
Be there a will, and wisdom finds a way.

—Crabbe.

PRESENTLY, IN A MAN'S VOICE THEY

"Just as I thought; the gate's too high!"

"Yes," another voice, also a man's, responded. There was a moment's silence.

"Is the gate locked so we can't n-fasteen it?" the first speaker asked.

A noise followed as if someone were shaking the gate. Then the second man answered:—"It seems to be. I can't tell whether the padlocks are on or not. Strike a match. The yard watchman is down near the last mill; he won't notice it."

Immediately a spark of light appeared near the gate. The boys, rising softly on their knees, peered over the top of the boiler; and as the flame of the match became stronger, they could see the faces of the men. One Jack instantly recognized as the foreman of the mills, now on strike with the rest. The other face was unfamiliar. Both of the men were examining the fastenings of the gate.

"Yes," said the ex-foreman, after a minute. "The bars are up. But it's our best chance all the same. The fence around the mills is strong and set with spikes. The gate'll go quick enough, if we run against it with a good sized beam and a dozen of the men behind it."

"I guess you're right," returned the other slowly. "We'll get the men and meet here in an hour. Remember, the instant the gate's broken in everyone must rush for the east mill. The most valuable machinery's there, and the men know just where it is. Everything can be smashed in half an hour so as to be practically useless. The watchmen—there are only two of them you say—will run if they know what is best for them. The whole thing mustn't take more than half an hour, so that we can get out of the way before help comes from town. We shall have to make a big noise, and someone will be sure to give the alarm."

"I understand," replied the ex-foreman; and the two walked away. When the sound of their footsteps had died away, the three boys drew a long breath. Then Jack whispered:—"Did you fellows hear what they said?"

"Yes," answered Jim. "The strikers are coming to smash the machinery; and they'll do it. They've been so peaceable no one thought of such a thing, and there are only two watchmen in the mill. When once the gate is battered down, they'll make short work of it."

"Let's warn the watchmen, anyway," said Fred, quickly. He started to his feet as he spoke and Jack followed him example. But a "Hold on there!" from Jim, stopped them.

"What's the matter?" asked Ned.

"Just this," responded Jim, speaking in an eager excited voice. "I've got an idea that's better. The strikers won't be here for an hour, and when they come it'll take them ten minutes to break in, if they have it all their own way. But why can't we make it hot for them? If two of us can keep them off while the other runs to town, we may save the mill."

"How'll we keep them off?" asked Jack. "There'll be a hundred of them likely enough."

"With the big crackers," responded Jim. "Those crackers'll do some damage if they go off in a crowd. I've got balls from the candles would be ugly things to have whistling about one's ears. Of course, we couldn't keep them off long; but they won't be expecting any such thing, and we could frighten and bother them so that they wouldn't be able to batter down the gate half so soon. What do you say?"

For an instant neither of the other boys replied. The idea was so startling that they did not take it in at once. Then they gave a quick assent. Fred helped to get the top of the wall on the shoulders of the other two, and, once there, he drew up Jim. Five minutes later they determined on their plan. Jack had disappeared in the direction of the town, and Jim and Ned were searching for the watchmen.

It did not take long to find them, and a few minutes later the boys had told them of the scheme of the strikers, had unfolded their own plan and were busily sorting out the largest firecrackers and Roman candles on top of a pile of big boxes inside the walls. From these the boys could look over the gate, and at the same time were fairly well protected. The watchmen barricaded the gate as strongly as possible with long beams and posted themselves near the boys.

Then came what seemed to the watchmen a never ending wait; each one listened with strained ears and imagined that every rustle of the wind in the trees signalled the approach of the strikers. But really it was scarcely half an hour until they clearly distinguished the sound of many footsteps, and dark as it was, saw a large body of men coming across the fields. The boys bent down and blew upon their lighted sticks of punk. The cannon crackers were piled beside them, the fuses of every one broken off short, so that the explosion would follow close upon the touch of the glowing punk.

When the strikers had come within fifty yards, one of the watchmen hailed them.

"Hello, there!" he yelled. "We know what you're after. Don't come any nearer or we'll fire on you!"

The crowd of men halted; and though the watchers at the gate could distinguish no words, they saw that there was some confusion among them. They were evidently discussing this unexpected look for check. Presently a voice, which the boys recognized as that of one of the two men whom they had heard at the gate an hour before, then cried:—

"There are only two of them. Go on! Rush at the gate! Break it down!"

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"There are only two of them. Go on! Rush at the gate! Break it down!"

The crowd at once started forward on the run. But they had not gone ten yards when two bright flashes cut through the darkness and two sharp reports showed the strikers that the threat of the watchmen was not an empty one. Almost instantly the attacking party halted. It was evident that they were considerably daunted by the shots, and though no damage had been done, both watchmen having fired into the air, were less anxious to rush forward than before. Again the voice which had urged them on was raised in encouragement, and a moment later they started on another wild run for the gate.

The boys saw that their turn had come. They quickly touched the fuses of two of the biggest crackers to the punk and then rushing hurried them directly into the throng of men, now only a couple of feet from the gate. One cracker exploded in the air directly above the strikers' heads; the other dropped among them and almost instantly went off. It was easy to see that these explosions had their effect. Loud yells of pain came from the men and they scattered like a pack of sheep. At the same moment the watchmen again discharged several shots in the air, and the boys imagined that the rout of the enemy was to be complete. But they were mistaken. Just as they were about to give a yell of triumph which they could not restrain, a quick warning from one of the watchmen drew their attention to the right hand side of the gate. There they perceived three or four men carrying a short piece of heavy timber, and even as they looked this was run against the gate with a crash which made its framework groan. Again the assaulting party rushed forward; but again two of the cannon crackers, hissing and splitting fire, were thrown plump in their faces, exploding close to the watchmen's heads. Two of the men were knocked down by the concussion; and the others, dismayed, dropped their improvised battering ram and wheeled about to retreat. But with a fierce yell the main body

